F. H. SHEPARD

A KEY TO HARMONY SIMPLIFIED

AND A

CLASSROOM MANUAL

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A KEY

TO

HARMONY SIMPLIFIED

AND A

CLASSROOM MANUAL

BY

F. H. SHEPARD

AUTHOR OF "HARMONY SIMPLIFIED," "CHILDREN'S HARMONY,"
"HOW TO MODULATE," "PIANO-TOUCH AND SCALES,"
"CHURCH MUSIC AND CHOIR-TRAINING,"
"KEYBOARD DIAGRAM," ETC.

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TO TEACHER AND STUDENT.

To those who are seeking to know " the reasons why " in the structure of Music, this work is dedicated. It is designed, first, as a Key to the exercises in " Harmony Simplified "; second, as a guide and classroom assistant in teaching from that text-book; and third, as offering suggestive and supplementary material for those using other text-books. Students using the Manuals of Jadassohn or Richter will find many of the Part-writing exercises solved in the key. To further aid the student, the choice between various forms of chords is discussed, showing why one form is preferred to another in the individual case.

The questions and answers, appearing as notes upon the Part-writing, are suggestions as to how the teacher may proceed in the classroom. Nothing so establishes the student in his work as to be obliged to tell why each progression is made. Such definite work soon develops quick choice and rapid musical writing. The " Topics for Discussion " at the close of various chapters will be found of value in the classroom and for individual investigation, while many of the five hundred questions are suited for use in examinations.

The settings of the Part-writing exercises are not necessarily the only correct solutions. The author would be glad to receive alternative settings of the exercises whenever improvement can be made. Many of the settings are from the pen of Dr. Jadassohn himself, or were subjected to his personal criticism.

Those wishing still further light, a deeper line of discussion, or a more complete view of the author's methods, are invited to address the author personally.

ORANGE, N. J., 1908.

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KEY TO HARMONY SIMPLIFIED
AND
CLASSROOM MANUAL

CHAPTER I.

SCALES.

Special Note. When this Key is used by students for self-help, it should never be consulted until after the given exercise has been written.

[Section 6.]

A few scales should be written, even by advanced pupils, not because they are ignorant of scale-structure, but for the reason that by so doing the Relationship of Keys will become more apparent. Advanced pupils should write the scales with double-sharps and double-flats.

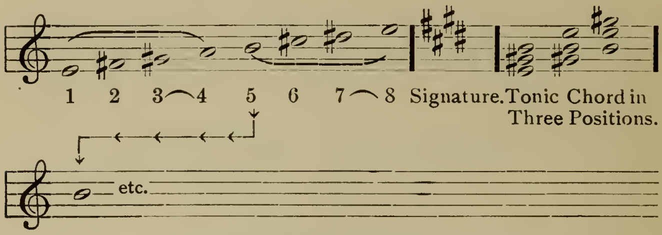
[Sections 6 and 12.]

If required to collect the sharps used in making the scale and write them in a group after the scale, the pupil will understand that the signature *comes from* or *grows out of* the scale, and not vice versa.

It is not customary to use double-sharps or double-flats in the signature, although there appears to be no reason further than lack of simplicity why they could not be used. When a key with double-sharps or double-flats is required, it is expressed by means of accidentals.

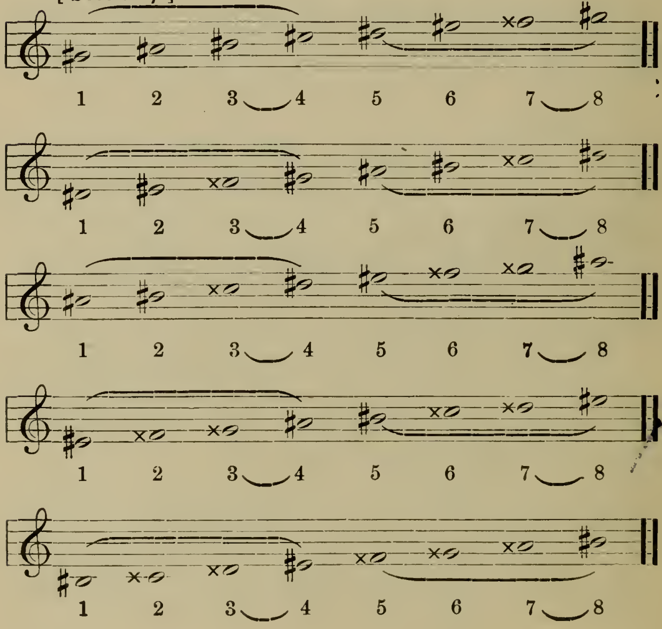
Piano students may also write, after the signature, the Tonic Triad in its three positions, in each key.

The complete scale, with formula, tetrachords, signature, and tonic triad, is illustrated below.



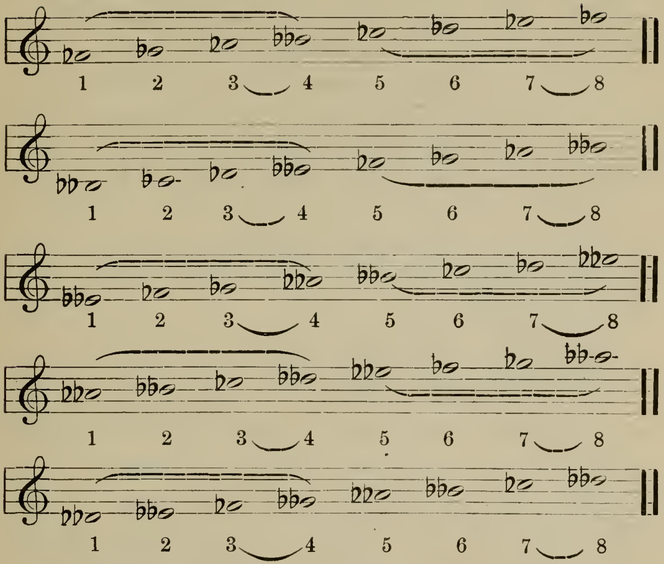
THE SCALES WITH DOUBLE-SHARPS.

[Section 7.]



THE SCALES WITH DOUBLE-FLATS.

[Section 9.]



[Sections 25–29.]

For advanced students these sections may be made the subject of extremely practical and valuable drill.

NOTES UPON THE MINOR SCALES.

[Sections 35–42, and 46.]

The various forms of the Minor Scale may be best understood by comparison with what is called the *normal form* of the minor scale.

The Normal Minor Scale is found by starting upon the sixth degree of any major scale and proceeding upward or downward to the octave above or below, using only tones belonging to *that major scale.* For example, from A to A in the scale of C major, or upon the white keys of the piano, is called the Normal Form of the scale of A minor.

The Harmonic Minor Scale may be considered as derived from the Normal Minor by simply raising the seventh degree a half-step to form a leading-tone. The harmonic form is the same ascending and descending.

The Melodic Minor Scale may be considered as derived from the Normal form by raising both the sixth and seventh degrees in ascending; the seventh being raised to make a leading-tone, and the sixth to make an easier approach to the seventh. In descending, the normal form is restored.

The Mixed Minor Scale, which is occasionally found, consists of the Harmonic Minor ascending and the Normal form descending.

NOTES UPON THE CHROMATIC SCALE.

[**Section** 43.]

But few are able to write the Chromatic Scale in keys other than that of C. Even trained performers "think" it in the key of C, regardless of the key in which they are playing or writing. If it be remembered that the chromatic tones are used to "fill in" at the points in the diatonic scale where the successive degrees are a whole step apart, it will be easier to understand this scale.

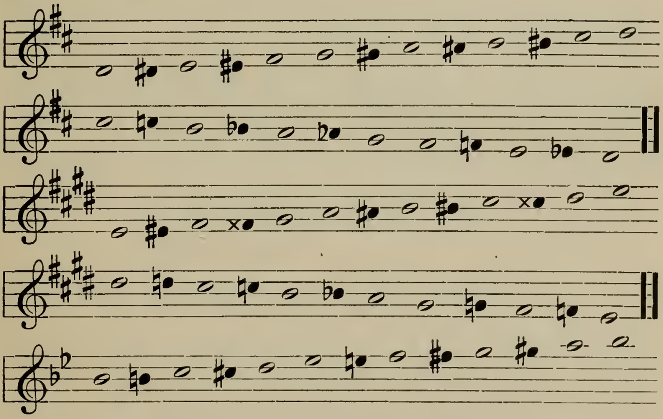
It should be remembered also that *every note of the diatonic scale* of any given key *appears in the chromatic scale* of the same key *without change of notation.* Therefore, to write the chromatic scale in any key, it is an excellent plan to *first write the diatonic major scale of that key,* leaving plenty of space between the successive notes; and then to *insert* the notes for the chromatic tones. By using different note-forms for the diatonic and chromatic tones, for example, whole notes for the diatonic and quarter-notes for the chromatic, it becomes easy to recognize the regular diatonic scale in the chromatic scale, or to see the diatonic scale as the skeleton or framework of the scale of half-steps, and thus to discern the underlying tonality in chromatic passages. The musician is always conscious of the prevailing tonality, at least in music of ordinary difficulty.

The diatonic note of any given letter always appears *before* the same letter with chromatic alteration. To illustrate: In the Chromatic Scale in the key of C, D♯ would never appear before D♮, but would always follow it.

In going upward, sharps are used to form the chromatic tones; in going downward, flats are used for the same purpose.

SPECIAL NOTE. The term "sharp" is here used to indicate *any* means of raising a tone. Therefore, if the diatonic note is expressed by, for example, B♭, the "sharping" of the tone would be accomplished by changing it to B natural, the natural, in this case, *performing the office of the sharp.* Similarly, naturals (also called "cancels") may perform the office of flats by lowering tones which are diatonically expressed by sharps.*

Below are given several examples of Chromatic scales in different keys.



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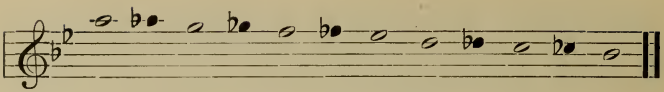
* In applying this principle the student must be careful to remember that a note expressed by a sharp or a flat may be "diatonic" in certain keys. For example, in the scale of G Major, F♯ would be the diatonic or regular scale-tone, while F natural would be the chromatic or altered tone. In this case F natural should not appear until after F♯ is used.



ADDITIONAL EXERCISES.

Write the Chromatic Scale in three or more "sharp keys," and in three or more "flat keys."

Office of the Half-step. A comparison of the major, minor and chromatic scales, and study of the Gregorian modes, will show how a change in the location of the half-steps will alter the character of the scale. A contrast between the whole and half-steps is necessary to avoid the monotony of a long series of similar steps. Without this contrast there can be no melodic tendencies.

.FACILITY.

It is not sufficient that we should simply know about the scales and their relationships. To make a success of Harmony study we must be able to "feel" these relations, to form easily and quickly any scale, and to actually "think" musical thoughts in any given key. In other words, all scales and keys should be just as "natural" to the musician as the scale and key of C. To this end, when writing an exercise the student should always try to be conscious of the scale-degree of each note as it is written. It is not musicianly to write the notes mechanically or without thought of what they express in their scale-relations. There should also be ample keyboard drill, either at the instrument or with the Keyboard Diagram, upon the following

ADDITIONAL EXERCISES.

(1) In quickly forming the various scales;

(2) In finding quickly the various single degrees by their degree-numbers (1, 2, 3, etc.), and by their relative names (Tonic, Mediant, Subdominant, etc.); and

(3) Transposing short fragments of melody into various keys. For this latter we might take the first six or eight notes of Yankee Doodle, of Annie Laurie, or other simple and familiar tunes. In this work care should be taken that the transposition is not made "by ear," but by taking the

corresponding scale-degrees, expressed by number, by Tonic Sol-Fa syllables, or by "relative" names (Tonic, Dominant, etc.). This is best accomplished by means of a dumb keyboard, or the Keyboard Diagram already mentioned.

(4) Professional students should make longer transpositions. For the highest class of work this study can be profitably continued for many months, and combined with regular drill in Ear-training.

Remember that the first step in "thinking" music lies in this inner appreciation of the scale in the different keys. It is rather difficult to express just what is meant by this. Possibly it may be understood if we say that we should always strive to realize "where we are in the scale"—on what degree—no matter in what key we are playing. The bane of piano study is that students so often play the notes without playing the music. That is, they play C, or G, or whatever the note may be, without thinking of its musical relations. This is less apt to be the case with violin students, who, being obliged actually to create the tone instead of simply finding the right digit, often think and hear more deeply than the piano student. But when the pianist succeeds in learning to hear and think music, he has the great advantage over the violinist of being able to produce "four-part" music and the various contrapuntal and chorus effects.

TOPICS FOR DISCUSSION.

Discussion of the topics mentioned below will be found most fruitful in developing a deeper and more musicianly understanding of the underlying laws of music.

1. Individuality of Scale-Degrees.
2. Active Tones and Resting Tones.
3. The office of the Half-step in music.

4. Principle of Melodic Tendencies.
5. Principle of the " Sharpest Note."
6. What does the word " Chromatic " mean ?
7. The scale as an expression of " Relationship."
8. What is " Tonality "?
9. The underlying principle of Related Keys as represented in the Scale and by the Chords of the Scale.
10. The Scale as epitomizing the great foundation-laws of Music.

NOTES ON EAR-TRAINING.

[Section 48.]

Each degree of the scale has an individual quality, and the student should be taught early to recognize the scale-tones from these qualities.

The problem of recognizing the scale-degrees may be much simplified by teaching the scale as divided into " resting " tones and " active " tones, the " resting " tones being the first, third, fifth and eighth degrees, and the others being " active " tones. It should be shown how each " active " tone tends to progress to the nearest " resting " tone of the scale. By working upon this basis, noting whether the tones suggest the " resting " quality or whether they suggest progression, and in which direction, it is possible for a class, after a little training, to recognize with readiness the various degrees of the scale and the various simple progressions.

Particular attention may be called to the upward tendency of the seventh degree, the downward tendency of the fourth degree, the sadness of the sixth step in certain connections, and the feeling of " completion " that develops as the first or the eighth step is approached.

This work can be made most interesting and profitable, and should be taken up at the very beginning of the study, to teach the student to listen intelligently. It is a surprising fact that many advanced musicians hear nothing of this exquisite beauty in the scale, but simply think that the different degrees differ only in pitch. Individual students can do a great deal with this work by simply quietly thinking. It is also well to take comparatively simple music — away from the instrument — and "think" how it would sound. This is a most musicianly drill, and is very helpful in Ear-training.

MELODIC TENDENCIES.

The tendencies of the seventh upward and the fourth downward, already mentioned, are so strong that in this work they are called "Tendency-notes," or "Melodic Tendencies." Their tendencies are similar to, but much stronger than, those of the other active tones, and are often emphasized by the use of the chords. (See "Harmony Simplified," §152.)

ANSWERS TO QUESTIONS ON SCALES IN "HARMONY SIMPLIFIED."

(1) The Half-steps in the Major Scales are from 3 to 4, and from 7 to 8. This is a law, because it represents a fixed Relationship. A short formula for scale-construction is: — "The Half-steps are from 3 to 4, and 7 to 8. All other steps are Whole Steps." Let your pupils *memorize* this.

(*a*) Do not write two notes upon the same degree of the staff. (*b*) Do not skip any letter. In other words, the letters must be used consecutively, else it is not a scale. (See "Harm. Simp.," §5.)

(2) When we look deeply for the real principles, we see that sharps and flats (also double-sharps and double-flats) are used *primarily* and *originally* "*to make the scales alike*," or to represent "*The*" scale, i. e., the *scale-principle*, at any and all pitches.

(3) There is ONLY ONE KIND of major scale, since the different so-called scales are merely duplicates of the *one scale-principle* at different pitches, that is, in different keys. Many people think that the scale of A♭ is a different kind of scale from the scale of D, for example; but a melody, or musical thought, can be represented *just as well in one as in the other.*

(4) This question is more frequently missed than almost any other, for but few see the *connection between the scale and the signature.* The answer is: "A signature is the *collected sharps or flats used* in forming the scale. Its source is *in the scale, or in its uniform construction.* Signatures come *from the scale* — not vice versa." See how the scale and its relationships are the true foundation, not only of music, but of *its notation* as well.— Also see this point later in the notation of *Chords.*

(5) Tetrachords are scales of four tones, which come from an old Greek form. They might be described in our notation as *half-scales*, since we find in each major scale two tetrachords, one placed above the other. Their office in the "Order of Keys" is most important, as they explain some of the most *vital* matters in related keys and in musical form. As each key or scale is related through its two tetrachords to the scale having one *more* sharp, on the one hand, and to the scale having one *less* sharp, on the other hand, we have at once the familiar group of the three keys called the Tonic, Dominant and Subdominant.

(6) The order of scales with sharps is G, D, A, E, B, F♯, C♯, G♯, D♯, A♯, E♯, B♯.

The order of scales with flats is F, B♭, E♭, A♭, D♭, G♭, C♭. Can you repeat the above quickly and state the number of sharps or flats in each key?

(7) The "Scale" implies *regular succession* of the seven (or eight) tones; while "Key" implies the *same relation-*

ships, but with no particular order required. In both Scale and Key notice that *relationship of tones is implied*, or the choice of tones having *fixed relations* to each other. Remember that relationship is the great foundation of music and the original source of all its laws. (Ponder this last statement.)

(8) In the location of the half-steps. In the Harmonic Minor they are 2–3, 5–6, and 7-8; in the Melodic, upward, they are 2–3, 7–8; downward, 6–5 and 3–2.

(9) C Major, and D Major; and the relative minors of all three, namely, E Minor, A Minor and B Minor. To this may be added the Tonic Minor, G Minor.

NOTE. Advanced students may discover a wonderful feature by observing that the six related keys (excluding the Tonic Minor) are represented in the corresponding chords upon the six degrees of the Major Scale. For example, the six chords mentioned above are found, respectively, upon the first degree, a Major triad; second degree, Minor triad; third degree, Minor triad; fourth degree, Major triad; fifth degree, Major triad; sixth degree, Minor triad. The seventh degree is not represented in this series, since it (the 7th degree) is the variable member, being the note which is changed in creating a new leading-tone, or in destroying the leading-tone of the preceding scale, in passing from key to key in the Circle of Keys shown in "Harm. Simp.", §§22–23.

(10) The right-hand sharp "places" seven of the scale; that is, the leading-tone of the scale is always the note indicated by the right-hand sharp; the keynote is found one degree higher. The right-hand flat indicates the fourth degree of the scale. For a short cut we can say, "the flat next to the right-hand flat is always the keynote itself." The above applies to the major keys only.

(11) Same as its relative Major.

(12) The office of the half-step is to give character to the scales. The character of the scale is instantly changed by changing the location of its half-steps. A scale ex-

clusively of half-steps is a characterless scale, and this is also true of a scale of all whole steps.

(13) To make a Leading-tone.

(14) No.

(15) A major key is changed to the (tonic) minor by lowering the tones upon the 3rd and 6th degrees each a half-step; and vice versa, by raising these tones.

(16) Tonality is "key-feeling," or the consciousness of being in some key. Or, better, it is the difference between using tones which stand in intelligent relation, one to the other, and of using tones without such relationship. Again, it is the general name of the "key" principle, just as "Mode" is the *general* term for Major or Minor. It differs from *key* only in that key means "tonality" expressed by a particular set of tones, or at a certain pitch. So tonality is the general term to express that which key expresses more specifically.

It is developed through the relationship of tones, or, in other words, by using tones so that the relationship to some central tone will be made clear.

In another and larger sense Tonality may refer to the group of related keys, taken collectively. A "Sonata in C," for example, would imply the use not only of the key of C, but also of several of its related keys. And in this larger sense the "Tonality" would include them all.

QUESTIONS.

(Supplementing those at the end of Chapter I of "Harmony Simplified.")

(1) How is the Relative Minor formed?

(2) What is the "Normal" Minor Scale?

(3) Where are the Half-steps in the Harmonic Minor Scale?

(4) What changes are made in the Normal Minor Scale to form the Harmonic Minor Scale?

(5) Where are the Half-steps in the Melodic Minor Scale?

(6) What changes are made in the Normal Minor Scale to form the Melodic Minor Scale?

(7) What changes are made in the Harmonic Minor Scale to form the Melodic Minor Scale?

(8) Why does not the accidental in the Harmonic Minor Scale appear in the signature?

(9) How is the Key of a composition discovered when looking at the music? (In your answer, make especial reference to the discovery of keys in Minor.)

(10) Name the Dominant and Subdominant in all Major and Minor keys.

(11) What do you understand by the term Related Keys?

(12) Can you describe more than one line of relationship?

(13) What do you understand by the word Chromatic?

(14) Do you see any relation between a Diatonic Scale and the Chromatic Scale in any given Major key; for example, in the key of A Major?

(15) In writing the Chromatic Scale, when are Sharps used and when are Flats used?

(16) Do you fully realize how F♯ or B♭ or *any* letter with sharp or flat attached may be a normal scale-tone, and therefore must not be considered as an accidentally altered tone, but, on the contrary, as just as natural to its scale as any white key to the scale of C?

(17) Write a formula in figures which will represent the Chromatic Scale in *any* Major Key.

(18) In writing a Chromatic Scale, would you write a chromatically altered note *before* or *after* the same letter in its normal or scale-form?

(19) Do you know any way of writing a Chromatic Scale, as used by good composers, other than the one here given?

(20) What do you understand by the term Diatonic? Compare the terms Diatonic, Chromatic and Enharmonic.

(21) What is the meaning of the word Mode?

(22) For what purpose are keys with double-sharps used?

(23) Have the different tones of the scale any individuality? In other words, do they all sound alike, or do certain tones have any individual characteristics?

SPECIAL NOTE. This is a most important line of thought, which the earnest teacher will do well to investigate, for it places the teaching and study of music upon a distinctly higher plane.

(24) What is a Tendency-tone?

(25) What is a Resting Tone?

(26) What is an Active Tone?

(27) Is there any difference between Active Tones and Tendency-tones?

The questions here given are designed to direct the mind toward the underlying principles — principles which are not always apparent at the first view.

Those who are interested in these deeper lines of thought are invited to address the author at Orange, N. J., for further notes and observations.

CHAPTER II.

INTERVALS.

Special Note. In the study of Intervals the distance between tones is necessarily uppermost in the mind, but the student should try to keep the matter of the *effect*, or *quality* of the intervals just as clearly in mind, even if this feature of the subject is not so often mentioned. He should learn to feel and appreciate the varying colors, and also the Tendencies of certain intervals and certain forms of intervals.

[Section 56.]

A more convenient way of expressing this idea is to simply "count the *letters* involved." This applies equally upon the staff and at the Keyboard.

[Section 58.]

Until a little careful drill has been given, pupils are often inclined to confuse the various points involved in correct interval thinking. The writer emphasizes particularly these two points:

(1) The *general* name of the Interval depends upon the number of *letters* involved, and *nothing else*.

(2) The addition of sharps or flats does not change the *general* name of an Interval.

To impress the above two points (which are in reality but different statements of the same thing) the writer asks his class to form, by touching the keys upon the Keyboard Diagram or the piano, the notes C double-sharp and E double-flat, and to give the general name of the interval. The instant answer of unthinking students is, "an Unison," for in the appearance under the finger the rule about the principle of "letters involved" is forgotten. It is the writer's custom to call attention to each detail of a principle by preparing some kind of drill which will cause a failure if that detail is overlooked.

[Section 59.]

This point of a Standard or Measurement is one of the most important and practical of this chapter, and should receive thorough drill. In studying the principle, the first mistake usually made is to say that a " Normal " interval is " one formed by two notes of the scale," or " from one note of a scale to another note of the same scale." It will be seen at once that from the second to the fourth degree (for example, from D to F in the scale of C) is not Normal. We must therefore emphasize the point that from THE KEYNOTE, and *not* from ANY note of the scale, to any other note, is " Normal."

[Section 62.]

In the exercise for changing from one form of the Interval to another form by increasing or decreasing the distance between the two tones, the question is frequently asked, " Should we change the higher tone or the lower ?" It is possible to make the change upon either note, unless forbidden by the form of the drill, but when the lower note is changed it frequently changes the interval into another key. Therefore, it is generally better to make the changes by the alteration of the higher note.

[Section 64.]

It should be understood that practically any form of any Interval *can* be developed. The table in §64 shows only those which are in common use. The others can be formed, but are not needed, and are therefore not represented in the table. In observing these commonly-used intervals we should note that if any given interval is employed (for example, the Augmented 6th), its correlative (here the Diminished 3rd) must also be included in the table, since by inverting the chord the interval will appear in inverted form. Therefore, if any interval is accepted, its inversion or complementary form must also be included among the usable intervals.

[Section 66.]

Following the thought in this section we can formulate a very simple rule for measuring or forming the Specific Intervals, namely: "Think in the Major Scale of the lower note."

ADDITIONAL EXERCISES.

[Section 68.]

(a) State whether the following intervals are normal, and, if so, whether major or perfect. Further, describe those which are not normal, as minor, diminished, or augmented: C–G, C–D, D–C, E–B, B–F, B–E, E–F, F♯–A♯, F♯–B, F♯–C, A–F, A–E, A–C♯, F–B♭, F–A, F–D, F–E♭.

(b) Form a major 6th from (above) each of the following notes: D, G, E, C, F, B, C♯, E♭, F♯, A♭, G♭.

(c) Form augmented 4ths from the same notes; also diminished 5ths, augmented 6ths, and minor 7ths.

(d) Form a major 3rd from D, and change to a minor 3rd.

Form a major 6th from E, and change to an augmented 6th.

Form a perfect 5th from F♯, and change to an augmented 5th.

Form a perfect 4th from B♭, and change to a diminished 4th.

(e) Describe each interval in the following chords: C–E–G–B♭, A♭–C–E–F♯, C–D–F♯–A, B–D–F–A♭, G♯–B–D–E.

(f) Similarly describe chords seen in your daily musical experience. (Make this your daily practice until facility is acquired. He who would attain real familiarity and facility with chords in analysis and at the keyboard, must first acquire the power suggested by these exercises.)

[Section 69.]

It is this principle of Extended Intervals which enables us to see how the great chords of the Orchestra or Grand Organ, extending through so many octaves, are merely duplications, or doublings and extensions, of the simple chords of three or four tones.

PERFECT INTERVALS.

[Section 75.]

(a) An important difference between Perfect and Major Intervals is shown in the following. As we have seen in §66, when the higher note of an interval is found in the Major scale of the lower note, the interval is called Normal. When, in addition to this, the *lower* note is also found in the Major scale of the *higher* note, they may be said to be "Normal both ways."

Both the above classes are of course Normal. But to distinguish those that are normal in *both* directions from those that are normal in *only one*, the latter are called Major, while the others are called Perfect. To illustrate, let us compare the interval C–G with the interval C–A. Since the upper tones G and A are both in the major scale of the lower tone, C, both intervals are normal. Trying the reverse, we find that C, the lower note, is in the scale of G, one of the upper notes, but is not in the scale of A, the other upper note. Therefore, the interval C–G is Perfect, while the interval C–A is not Perfect, but is only Major.

It will be seen that in the Perfect Interval the *relationship is reciprocal*, each note being normal in the other's scale. The above is, of course, only a different way of saying that Perfect Intervals remain normal when inverted, while Major Intervals do not remain normal when inverted. The statement of "belonging or not belonging to each other's scales" puts the matter in such a simple light that even young students can clearly understand this difference between Perfect and Major. Other differences are shown later.

[Section 75 (b).]

The division of consonances into Perfect and Imperfect is of no importance until the study of counterpoint is undertaken. The teacher, therefore, need lay no special stress upon this subdivision at present.

[Section 75 (c).]

Following the development and drill upon the Dissonant Intervals, the teacher might explain, (*a*) that this tendency upon the part of a Dissonant Interval to progress to another interval of restful quality, is really the basis of one of the most important principles of music; (*b*) that through it is developed the principle of Harmonic Tendencies, by which the most important dissonant chords, like the Dominant 7th, Diminished 7th, Augmented 6th, etc., are resolved; (*c*) that the pupils should bear this point very clearly in mind, keeping it for further study at the right time. Pupils who are not beginners might be referred to §154 for further discussion of this point. A brief statement follows:

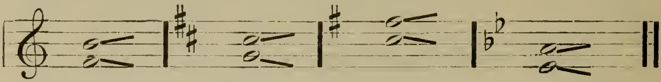
Since dissonant intervals can *not* be used in the final chord of a composition, all dissonant intervals must be "resolved," or allowed to proceed to consonant intervals. The process of passing from dissonance to consonance is called "resolution."

Augmented intervals, being already increased, in comparison with their normal form, tend to resolve by *further expansion* to the nearest consonant interval in the same key.

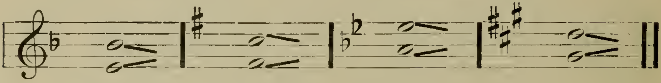
Diminished intervals, being already smaller, in comparison with their normal form, tend to resolve by *further contraction* to the nearest consonant interval in the same key. These are called Harmonic Tendencies. Harmonic Tendencies are found in all dissonant intervals.

ADDITIONAL EXERCISES.

(*a*) Resolve the following augmented intervals to the nearest consonant intervals in the same key:



(*b*) Resolve the following diminished intervals to the nearest consonant intervals in the same key:



See also "Harmony Simplified," §154–158.

ANOTHER DIFFERENCE BETWEEN MAJOR AND PERFECT INTERVALS.

[Section 76.]

Perfect Intervals have no Minor form. When a Major Interval is reduced one half-step, it becomes Minor. By reducing it still another half-step, it becomes Diminished. (Observe that two reductions are required to change a Major Interval to the Diminished form.) In contrast to this, when a Perfect Interval is reduced one half-step, it becomes Diminished. (Observe that but one reduction is required to change a Perfect Interval to the Diminished form.)

For the above reasons, in changing any larger interval to the minor or diminished form, we must remember whether its normal form is Major or Perfect.

The question often arises, *why* Perfect intervals have no minor form; or rather, why a perfect interval, when reduced a half-step, is not called minor, just like a major interval when so reduced? A partial answer is shown in the inversions, as follows:

Starting with the accepted principle, that by inversion Augmented Intervals become Diminished, Diminished become Augmented, Major become Minor, Minor become Major, and Perfect remain Normal, let us take the Interval C–G♭, and the question for discussion, "Is this interval Minor or Diminished?" The process of reasoning may be as follows:— Being once reduced from the Normal C–G, if we assume that it is a Minor Interval, it should become by inversion a Major Interval (and remember that Major Intervals are Normal). Inversion gives the interval G♭–C, which we find to be a half-step larger than the Normal Fourth from G♭, or an Augmented Fourth. We therefore find that our assumption, that C–G♭ is a Minor Interval, does not agree with the principle of Inversion. But if we assume that, being the reciprocal of the Augmented Fourth, it may be called a Diminished Fifth, we find that entire agreement with the principle of Inversion is secured.

Further, it will be found, when the principles of Harmonic and Melodic Tendencies are applied to the study of chords, that the classification of this interval as Diminished instead of Minor leads to a systematic and rational treatment of the whole subject of Resolution, displaying the great laws of music as working practically without exception, and appearing as a constant force, in a certain way like the power of gravity, which is always present. We may, therefore, conclude that the simplest way of looking at this subject is to accept the statement that "Perfect Intervals have no Minor form."

COMPLEMENTARY INTERVALS.

For any musicianly understanding of the subject of intervals it is very essential that the intervals should be viewed in their reciprocal relations. To illustrate this abstruse statement, the student should be taught to view the Diminished Fifth and the Augmented Fourth, not as belonging to two different classes of Intervals, but as being really the same Interval appearing in two forms; one being the Inversion of the other and *performing absolutely the same functions in chords.* While they appear to be exact opposites, the inner relationship should be constantly held in mind.

This subject is further developed in the treatment of the Dominant Seventh-chord in "Harmony Simplified." The pupil should be drilled in finding the Complementary Intervals, and in all his work should mentally group the intervals in pairs, as Unisons and Octaves, Seconds and Sevenths, Thirds and Sixths, Fourths and Fifths, the eight intervals forming four complementary pairs.

These reciprocal forms and inner relationships should be frequently discussed in the classroom, while drill upon the analysis and formation of intervals is continued until facility is gained. Without a thorough understanding of the principles which underlie the intervals. the later study of harmony remains vague and unsatisfactory.

TOPICS FOR DISCUSSION.

(1) Harmonic Tendencies.

(2) Principle of Resolution.

(3) Dissonance:—

All Dissonant Intervals must be resolved. The presence of even one dissonant interval in a chord makes that chord dissonant. Dissonant chords are naturally resolved by naturally resolving the dissonant intervals contained. A dissonant interval is naturally resolved by observing the harmonic and melodic tendencies of its constituent tones. Augmented intervals resolve by further expansion. Diminished intervals resolve by further contraction.

(4) Far-reaching effect of classification of Consonance and Dissonance.

(5) Dissonance and Consonance as suggestive of Activity and Resting—a picture of human life and experience.

(6) The Octave as embracing the whole of music.

(7) The Principle of "Correlative," or "Reciprocal," or "Complementary" intervals, and its effect upon Music in general.

(8) (For advanced students) The Unity of the Essential Dissonant Chords (the Dominant Seventh, Diminished Seventh, Minor Ninth, and the three forms of the Augmented Sixth-chords), as demonstrated by the universal application of the principle of harmonic tendencies.

QUESTIONS ON INTERVALS.

(1) Intervals are the expression of two different things. What are they?

(2) What is the office of intervals?

(3) How many tones are required for an interval? How many for a chord?

(4) Describe the two possible ways of producing intervals, and the classification resulting therefrom.

(5) Can you sing an Harmonic interval?

(6) Can you sing a Melodic interval?

(7) What relation do intervals bear to chords?

(8) Define the terms "General Names" and "Specific Names" of intervals. Describe the difference, and illustrate.

(9) How is the general name of an interval determined, either at the keyboard or upon the staff?

(10) Can the general name be changed by adding sharps or flats? Can the specific name be so changed?

(11) Describe the terms Major, Minor, Diminished and Augmented.

(12) Which is the standard of comparison?

(13) *What is a Normal Interval?*

SYNOPSIS OF INTERVALS.

- Intervals
  - Definition
    - Expression of (a) Distance; (b) Effect, of two tones sounding together (harmonic), or in succession (melodic).
  - Office
    - To give character to chords.
  - General Names
    - Unisons, Seconds, Thirds, etc., to Octaves or Ninths. General name depends upon number of letters involved, counting extremes.
  - Extended
    - Same as when within an octave.
  - Specific Names
    - Comparative terms.
    - Major, the standard of comparison.
    - Minor, one half-step smaller than Major.
    - Augm., one half-step larger than Major.
    - Dimin., one half-step smaller than Minor or Perfect.
  - Difference between Perfect and Major
    - Perfect intervals have no minor form.
    - Perfect intervals remain Normal when inverted; or are "Normal both ways."
    - Perfect intervals cannot be altered without changing them to dissonances, while consonant major intervals can.
  - Normal
    - Definition
      - From keynote to any degree of same major scale.
    - Divisions
      - Major. — Is "normal" in one direction only.
      - Perfect. — Is "normal" in both directions.
    - Use
      - Standard of Measurement.
      - To quickly form or analyze any desired interval.

- Intervals (continued)
  - Inversion
    - Of General intervals: — Subtract from 9.
    - Of Specific intervals
      - Major becomes Minor.
      - Minor becomes Major.
      - Augm. becomes Dim.
      - Dim. becomes Augm.
      - Perf. remains Perf.
    - Complementary or Correlative
      - Character unchanged by inversion.
  - Qualities
    - Consonant
      - All Perfect intervals, and Major and Minor 3rds and 6ths.
      - Expressing rest.
    - Dissonant
      - All intervals other than consonant.
      - Expressing unrest.
      - Tendencies
        - Augmented intervals tend to expand.
        - Dim. tend to contract.
        - Major dissonant intervals tend to expand.
        - Minor dissonant intervals tend to contract.
        - The law of Resolution.

ADDITIONAL QUESTIONS.

(14) Describe a simple way of measuring intervals.

(15) Of the Normal intervals, which are Perfect?

(16) Is there a convenient way of remembering the Perfect intervals?

(17) Of the Normal intervals, which are Major?

(18) Are Perfect intervals radically different from Major intervals, or are they a subdivision of the same class, and why?

(19) How many reductions are required to change a Major interval to diminished form?

(20) How many reductions are required to similarly change a Perfect interval?

(21) How then do Perfect intervals differ from Major intervals?

(22) Describe the principle of Extended intervals, and its important bearing on the structure of music.

(23) Describe the Inversion of intervals, (a) in their general names, and (b) in the specific forms of Major, Minor, etc.

(24) Describe the Correlative groups resulting from inversion.

(25) What great bearing has the "correlative" idea upon the whole structure of music?

(26) What difference between Major and Perfect is developed by inversion?

(27) What is the difference between Discord and Dissonance?

(28) With respect to the effect, into what great classes are intervals divided?

(29) Give the technical meaning of the terms "Consonance" and "Dissonance."

(30) Divide the Specific intervals into these classes.

(31) What relation does this principle bear to the structure of music?

(32) Trace relationship (a) between the Major Scale and Major Intervals, and (b) between the Minor Scale and Minor Intervals.

(33) Can you *think* how a major 3rd sounds? A major 7th, or an augmented 4th?

(34) Do you ever think of the "tone-color" of a composition, and how the color depends upon the intervals?

(35) Can you trace any connection between the (melodic) intervals and the character of a motive or the general character of a composition? (NOTE. Just give your own impression of this point.)

(36) What is the meaning of Enharmonic?

(37) Can you trace in a few words the historical origin of intervals?

CHAPTER III.

TRIADS.

NATURE'S CHORD.

The overtones may be clearly illustrated by depressing the piano-keys Tenor G, Middle C, and the E and G next above, without causing the tones to sound; and, while holding these keys, striking the lowest C and its octave, when all the tones represented by the depressed keys will immediately commence to sing if the piano is in good tune. The reason for this, which is to be sought in the law of Sympathetic Vibration, is an interesting subject for discussion. These harmonic overtones are also well displayed in the recently invented "Telharmonium," now being exhibited in New York, which every scientific music-student should hear. The matter of harmonic overtones is an important factor in the use of the sustaining pedal on the piano.

SEVEN CHORDS IN THE KEY.

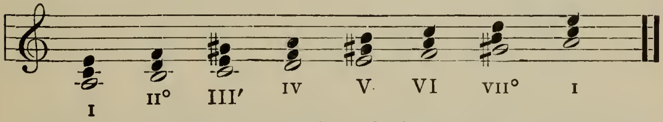
[Section 91 (a).]

Many young pianists confuse the terms "Chord of C" and "Key of C," with the result that they are conscious of only one chord in the key, and therefore have a wrong impression that the key is changed with every change of chord. The point should therefore be emphasized, that a chord may be built upon each of the seven degrees of the scale, and that these seven resulting chords constitute much of the vocabulary from which the composer chooses the material for his composition. It should be plainly understood that all of these seven chords are clearly "in the key," and that the tonic chord, though more frequently used and therefore more important, is no more truly in the key than any other of the seven chords.

[Section 93.]

Attention may be called to the fact that the *fifth* of the chord more directly determines the quality of Augmented or Diminished, while it is the *third* of the chord which determines the quality of Major or Minor. In making this statement, however, it is necessary to remember that the extra large or Augmented Fifth is always associated with the large (or major) Third, while the extra small, or Diminished Fifth is always associated with the small (or minor) Third.

[Section 93 (a).]



NOTE. In *writing* the exercises, the large Roman numerals are best distinguished from the small Roman numerals by using the cross-stroke above and below for Major Chords (VII) and by omitting them for Minor Chords (VII) instead of making a marked difference in the size of the number. This is the professional way.

POSITION.

[Section 96.]

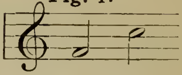
Many students think of the word Position as referring to all three tones of the Triad, whereas, technically, it refers to only one — the highest. To avoid confusion with Inversions it is customary not to say " First Position," " Second Position " and " Third Position," but " Position of the Octave," " Position of theThird " and " Position of the Fifth." Especially be careful not to confuse " Third Inversion " with " Position of the Third."

CONSECUTIVE FIFTHS AND OCTAVES.

A clear understanding of Consecutive Fifths and Octaves will aid in avoiding them. Observe the following:

It requires *two* voices to make consecutive Fifths or Octaves. If *one* voice (soprano, or tenor, or alto, or bass) should jump a Fifth, it would not be a *consecutive* Fifth. For example, Fig. 1 is *not* a consecutive Fifth, because there is only one part. Now note carefully the following: To make consecutive Fifths

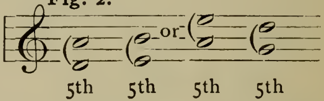
Fig. 1.



(1) There must be *two* parts.

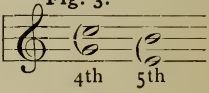
(2) They must move in the same direction, that is, both must move upward or downward.

Fig. 2.



(3) The two parts must be a Fifth apart in each of two successive chords; that is, if they are a Fourth apart in one chord and a Fifth apart in the next chord, they do *not* form consecutive Fifths.

Fig. 3.

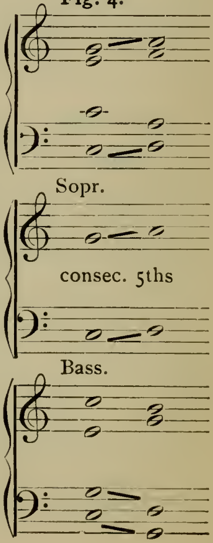


(4) Consecutive Fifths may occur between *any* two parts; for example, between bass and soprano. Consecutive Fifths may exist, although possibly two or more octaves apart, and with other parts between. Here are consecutive Fifths between bass and soprano.

Leaving out the other voices shows them more clearly, thus:

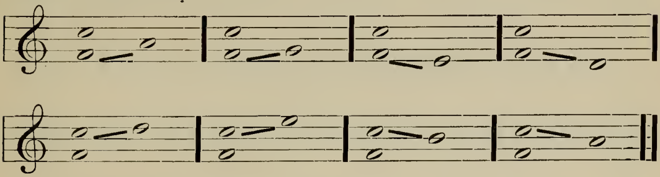
Consecutive Fifths between bass and tenor:

Fig. 4.

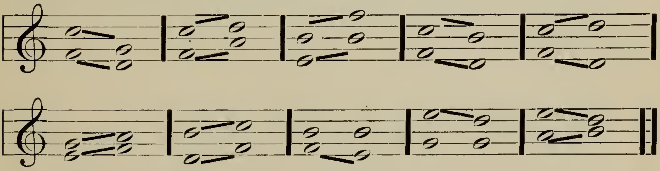


EXERCISES.

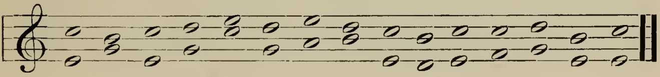
Add one note in each of the following examples to make consecutive Fifths.



Are these consecutive Fifths?



Find the consecutive Fifths in the following example.

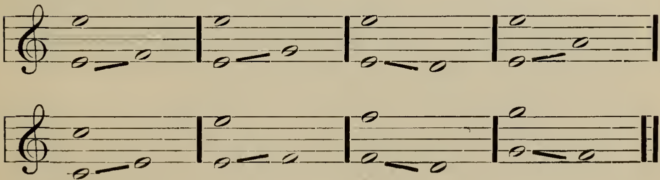


CONSECUTIVE OCTAVES.

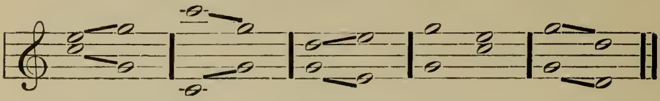
All that has just been said about consecutive Fifths applies equally to consecutive Octaves.

EXERCISES.

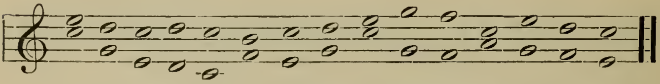
Add one note in each of the following examples to make consecutive Octaves.



Are the following progressions consecutive Octaves ?



Find the consecutive Octaves in the following example :



Remember that consecutive Fifths and Octaves may be avoided by contrary motion between the two parts which make them.

[Section 99.]

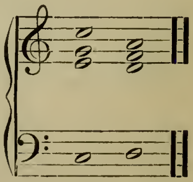
Extended octave-passages in a composition should not be considered as violations of the rule against consecutive octaves, but as the strengthening of the part for a special effect. In its relation with the other parts, the octave in this case may be considered as a single note.

[Section 103.]

The " process " here outlined may seem childish, but experience shows that a certain percentage of pupils at this point do not know " how to think," so this channel is provided for the thoughts of those needing it.

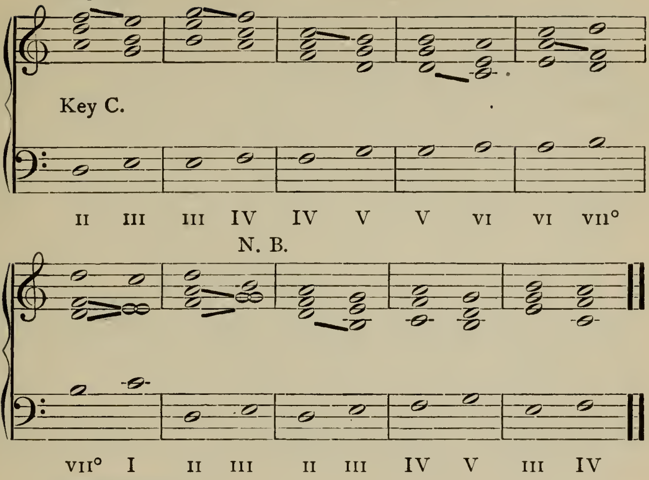
[Fig. 31 (a).]

In practical work in part-writing it is often better to treat this progression as shown below, in spite of the rather objectionable hidden Fifths, in order to secure a better disposition of the parts and better connection with the following chords :

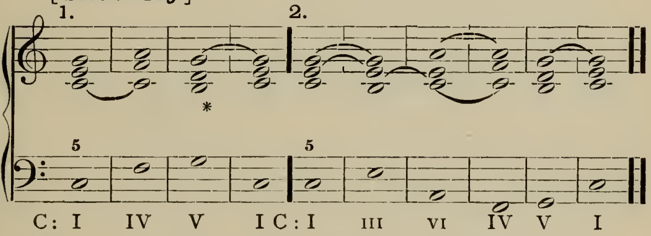


Similar treatment is possible in Fig. 32, seventh measure.

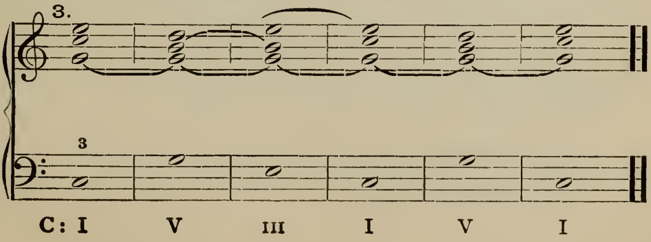
[Fig. 32.]


Key C.
II III III IV IV V V VI VI VII°
N. B.
VII° I II III II III IV V III IV

[Section 115.]

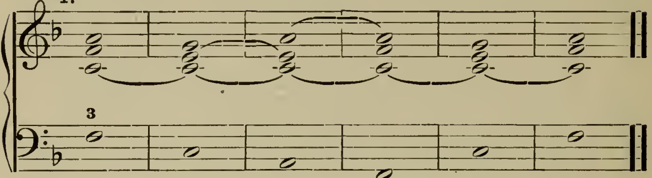


* Note the "contrary motion" (upper three parts moving contrary to the bass) when there is no " common note " to connect the chords.



Do not be troubled by the monotony of the soprano in these early exercises.

4.



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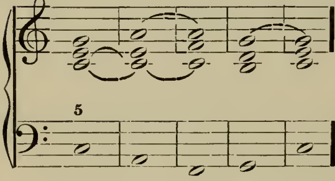

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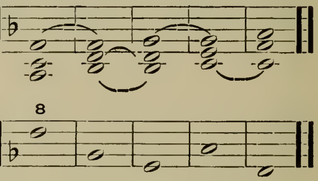

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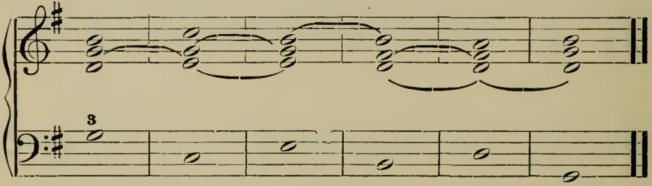
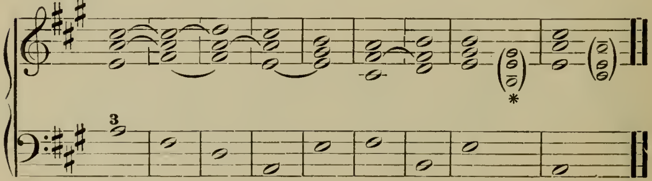


8.



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* See Note under §116, No. 6.

GENERAL NOTES ON PART-WRITING.

(For Frequent Reference and Discussion.)

(1) Not an absolute and slavish following of rules, but a tactful recognition of the several *influences* affecting the art, will give the best results.

(2) The only rule without an exception is the one against Consecutive Octaves and Consecutive Perfect Fifths. Next in inflexibility comes the one against doubling the Leading-tone, which is very seldom violated in strict writing.

(3) All other so-called rules are not absolute, but are, in the last analysis, only influences, varying in degree of strength according to the conditions obtaining at the moment, a given " rule " being in one place paramount, and in another place subservient to another " rule." The first point for the student, then, is to understand the directions for the early efforts not as hard and fast rules to bind him into awkward rectitude, but merely as a working basis, or scaffold, to be discarded as soon as the artistic side of the subject is developed.

(4) The conventional rules for part-writing will be found after a little experience to rest upon a few simple principles. These principles are described in " Harmony Simplified," §§ 161–168. They should frequently be discussed in class, and pondered by the student.

(5) In the first exercises the chief object is to show the pupil how to use the tools. These exercises are therefore more or less monotonous in effect. In writing a melody, we should need more variety in the highest part, but in these exercises it is quite allowable to pass to the nearest form of the new chord in each case.

(6) Sometimes the Fifth of the chord may be omitted to secure better leading of the voices, but the Third is never omitted.

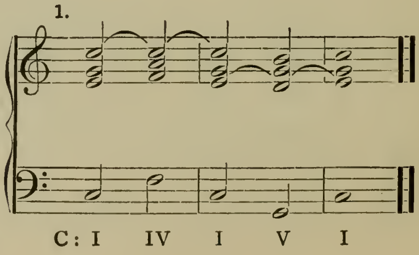
(7) When the bass progresses stepwise, either up or down, there can be no "common note." It is therefore usually necessary to employ contrary motion in several voices, to avoid consecutives with the bass. It may be observed that when the bass moves a 3rd or 6th up or down, there will be two notes in common. When the bass moves a 4th or 5th up or down, there will be one note in common. Thus there is at least one common note for each movement of the bass within the scale, except when it progresses to the notes next above and below.

(8) As we proceed and become more at home in connecting chords, more attention should be given to securing variety in the melody. In choosing between two possible "positions" of a chord (when other considerations are equal), this point often becomes the deciding factor.

(9) The occasional questions in this Key are intended to be suggestive of regular procedure in the classroom, and illustrative of the mental process constantly used by the student when writing the exercises.

(10) In the solutions of the exercises the occasional chords in parenthesis show alternative settings. It should be understood that the settings given are not the only correct ones.

[Section 116.]



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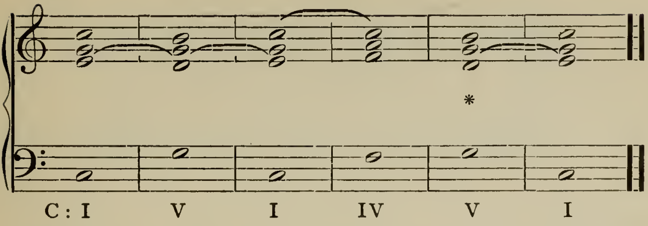

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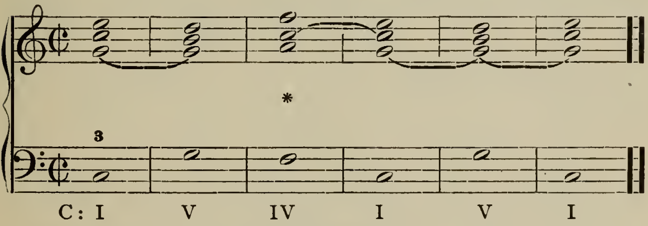

* Observe the contrary motion.

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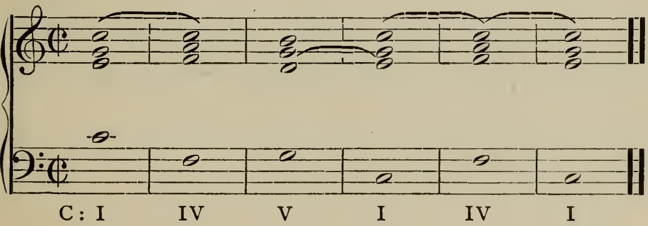

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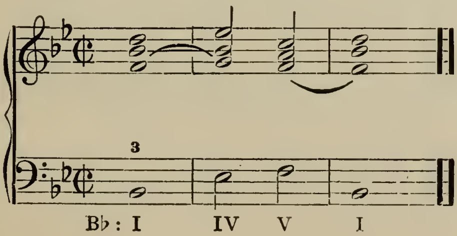

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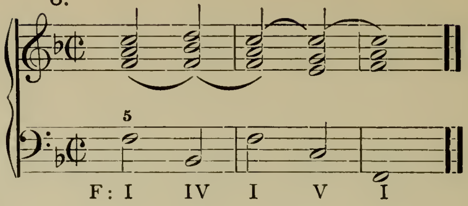

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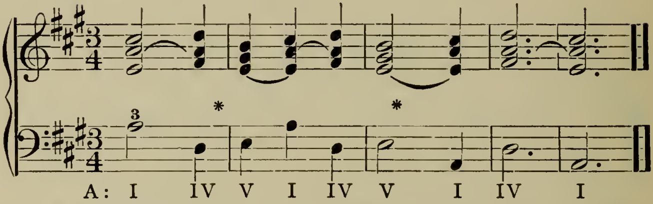
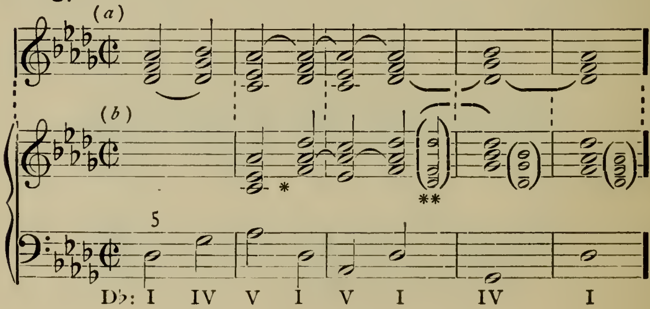


* Here we have hidden Fifths (soprano and tenor), in which the higher part skips; this leading is, therefore, not to be especially commended. But the soprano could not progress to E, since consecutive Octaves with the bass would arise. And to lead the tenor up to G♯ would double the leading-tone, which is seldom good. The progression given is, therefore, technically the least objectionable; while in consideration of the contrary motion in the bass and the smoothness of the following chords, the effect is fairly satisfactory.

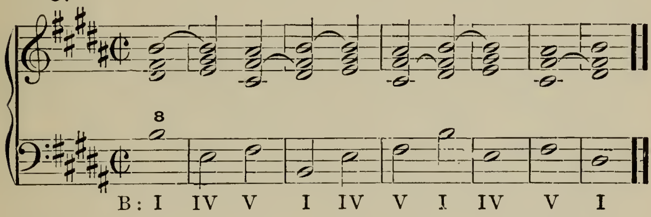
8.



To avoid absolute monotony in the soprano of the setting (*b*), the "common note" is disregarded at *.

For further melodic variety, in the alternate setting at * * the Fifth of the chord is omitted to secure a "common note" in the tenor, leading to a lower position in the following chord.

9.



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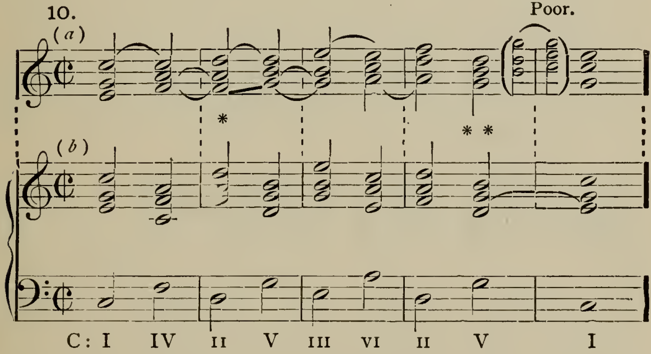
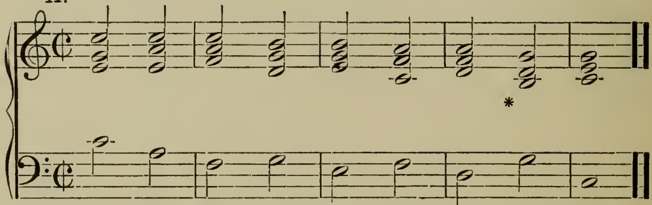


Observe the sequence in the bass. Such a sequence is best treated by sequential writing in the other voices, whenever possible.

* The faulty Hidden Octave (the downward tendency of F is disregarded) is excused by the sequence, and also because one is an "inner" voice. It may, however, be avoided by sacrificing the "common note," as shown in the alternate setting (*b*).

* * One of the first of the formal rules to be disregarded is that of keeping the " common note " in the same voice. Whenever a better distribution or a smoother melodic flow of the individual parts can be secured, this rule may occasionally (not constantly) be disregarded. The source of most of the rules lies in the desirability of close connection between successive chords. When a fairly close connection can be secured and at the same time some other very decided advantage gained by non-observance of the rule, we may consider ourselves privileged to disregard it. In this exercise, at the point marked, the upper three voices are already rather high, and it would not be especially musical to have them go still higher and then close the exercise upon these high tones. To gain a better distribution of the voices and a better close, we take advantage of the upward skip in the bass to bring the voices down to a better level, instead of keeping the "common note" and carrying the chords to a high position, as shown in the small notes.

11.

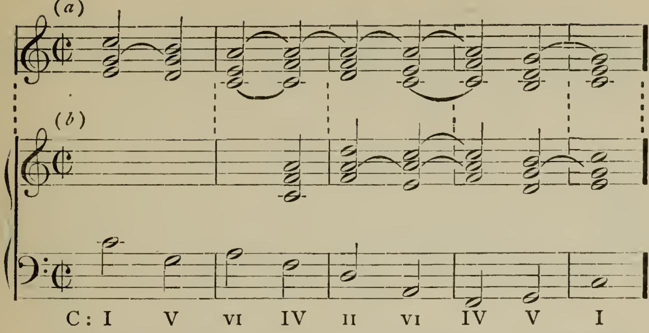


C: I vi IV V iii IV ii V I

Q. Why should we not retain the "common note" D in the tenor at * ?

A. To retain the "common note," D, in the tenor would force the soprano and alto to progress upward, and so make a Hidden Octave with a violated tendency, between bass and alto, the downward tendency of F, 4th of the scale, being disregarded.

12.



To secure a little variety in the soprano, we disregard the "common note" in the second setting and spring to a higher position, which also makes a more satisfactory ending.

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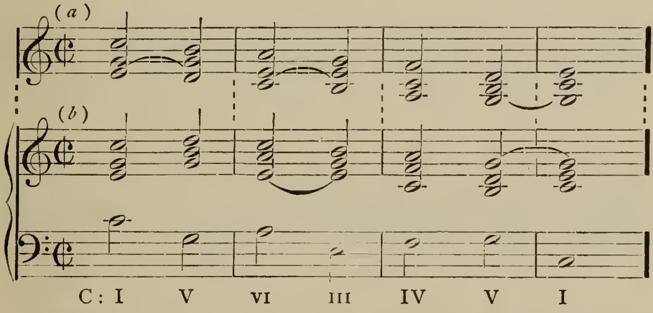
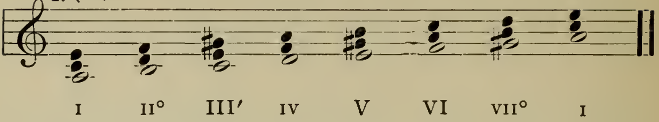


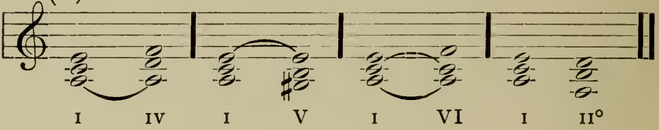
In the setting (*a*), by strictly following the rule of keeping the "common note" in the same voice, the upper voices are brought down very low, the tenor meeting the bass in the next to the last chord. The effect, however, is not bad. But if it is desired not to bring the upper voices down so low, a higher position can be gained by sacrificing the "common note" in the first progression (from the first to the second chord), as shown in setting (*b*).

[Section 120.]

1. (*a*)



(*b*)



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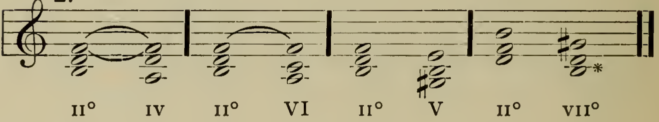

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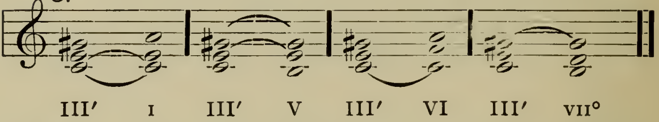

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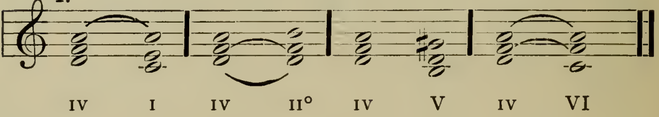

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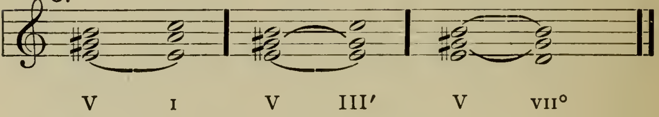

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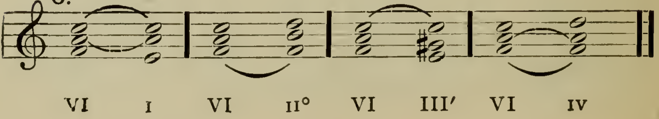

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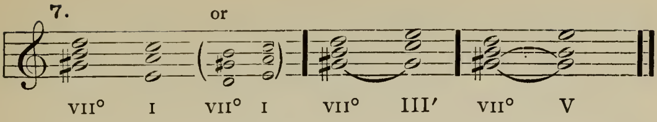


* To avoid the forbidden one and one-half step upward from VI to VII° (F–G♯), and at the same time to avoid consecutive Fifths, it is necessary to start in a different position. It is also necessary to ignore the rule to keep the common note in the same voice. In practical writing this progression would hardly appear in this form. It is easier to manage in four parts.

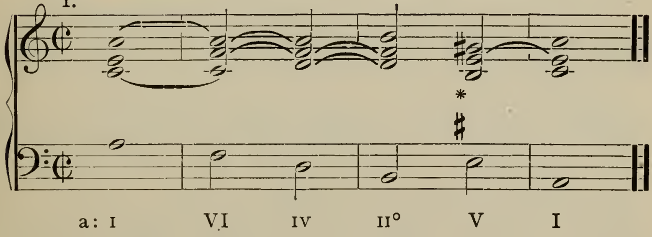
ADDITIONAL EXERCISES, FOR ADVANCED STUDENTS.

(*a*) In the key of A minor, connect the triad upon each degree with the one next above; trying the different positions to make the best effect, and rejecting those which are unsuitable.

(*b*) Similarly, connect the triad upon each degree with the one next below.

[**Section** 123.]

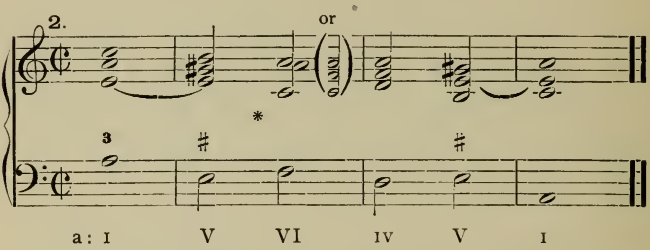
1.



**Q.* Why is the "common note," B, not retained in the same (soprano) voice?

A. Had the soprano been held on B as in the previous chord, it would have obliged the alto, F, to pass upward the forbidden one and one-half step to G♯. To avoid this step and a half between VI and vii° of the minor scale, we approach the leading-tone from above. For example, we move from B down to G♯, instead of from F up to G♯. This illustrates how one influence must give way to another.

2.

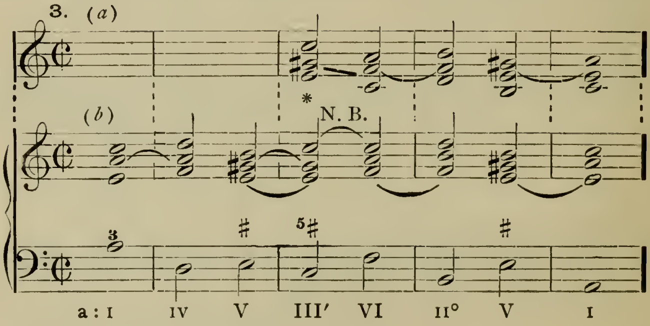


**Q.* By what right is the leading-tone, G♯, of the second chord carried downward to F of the chord in parenthesis?

A. Being in an inner voice, and the note to which the leading-tone would progress being represented by the soprano, we are allowed to carry the leading-tone downward in order to make a better disposition of the parts. This is fully explained in "H. S.," §163.

NOTE. The *downward* progression of one and one-half step is permitted, although the *upward* progression is not used in strict writing.

3.



* See Note on following exercise.

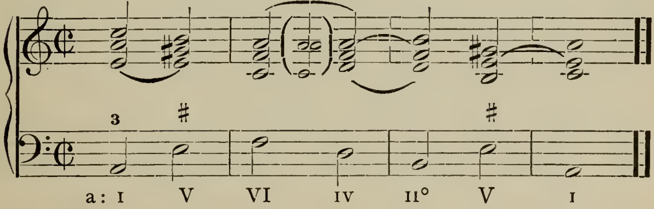
Q. Why is the hidden Fifth allowed from the second to the third chords (soprano and tenor)?

A. For several reasons combined:

(1) The contrary motion to the bass tends to remove the ill effect. (2) The fact that no tendencies are violated helps to avoid ill effect. (3) Only one voice skips, the other moves stepwise. (4) The Fifth is between one inner and one outer voice, instead of between outer voices.

The alternate setting (*a*), from the third measure onward, seems better than the other, as the chords work well against the bass. The leading-tone in the fourth chord is led down for the reason given above.

4.



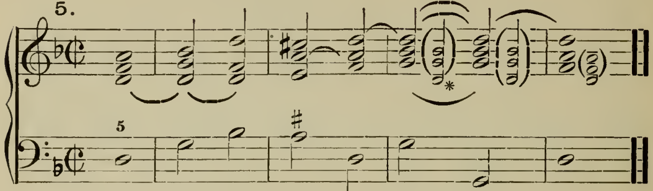
Q. 1. How would you treat the progression from the second to the third chord?

A. There being no "common note," contrary motion to the bass should be adopted. One or more of the upper voices should, therefore, be led downward. The Tendency of the Leading-tone, G♯, in the alto of the second chord is to ascend; but as the note to which it should proceed is taken by the soprano, it is better to lead it downward with motion contrary to the bass.

Q. 2. Would you keep the "common note," B, in the fifth and sixth chords, in the same voice? Give reasons.

A. If B were retained in the soprano in both chords, it would force the alto to make the forbidden one and one-half step upward from F to G♯. By approaching G♯ with the soprano, this fault is avoided. The "common note," therefore, should not be retained in the same voice. (See Note on Exercise 1, p. 42.)

5.

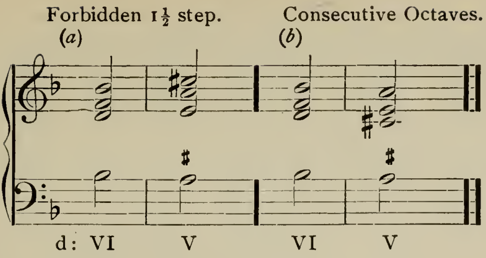


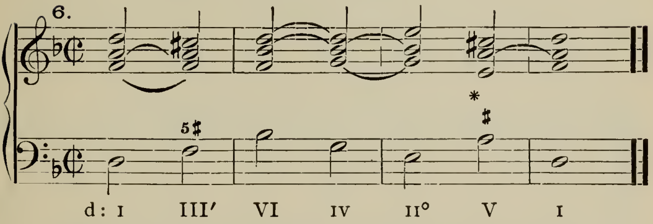
Q. B♭ is a "common note" between the second and third chords. Why should it not be retained in the same voice?

A. It would lead to difficulty in the next progression, as follows: If it were to pass upward to C♯ of the fourth chord — see (*a*) below — it would make a forbidden one and one-half step, or augmented second. If it were to pass downward to A — see (*b*) below — it would form consecutive Octaves with the bass. To avoid these two faults, we simply write D in the soprano of the third chord, instead of B♭. This doubles the 3rd, but is *preferable to any forbidden progression.* (See Notes on Doubling the Third, page 62.) Remember, that the Forbidden Augmented Second upward from VI to vii° in the minor scale may easily be avoided by approaching the leading-tone from above, regardless of the voice in which it occurs. The usual correction of this point in pupils' work consists in transposing the notes of the chord into the next higher voice. That is, if the faulty progression occurs in the alto, try to place the leading-tone in the soprano; if in the tenor, try to place it in the alto, etc.

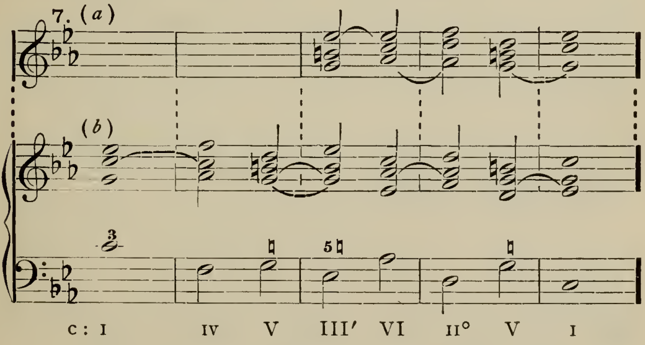
Q. Why is the "common note" in the soprano sacrificed at * in the alternate setting?

A. By sacrificing the "common note," a little more melodic variety is secured.





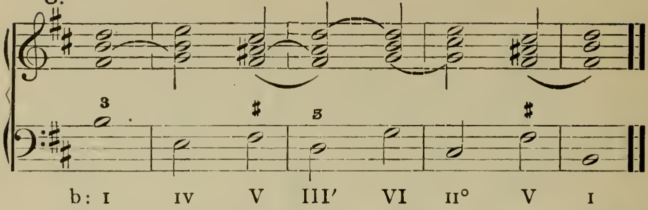
* Note that the forbidden interval from VI to vii° in the minor scale may be easily avoided by *approaching* vii° *from above*, regardless of the voice in which it occurs.



Q. Why are we forced to have hidden Fifths from the second to the third chord?

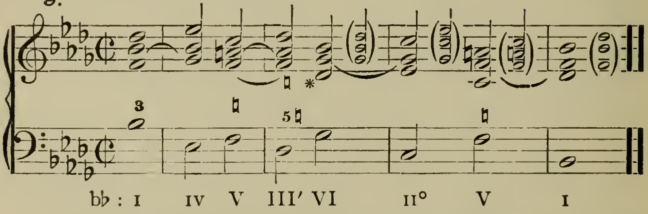
A. If the soprano should go up to G, consecutive Octaves would result.

8.



The bass of the following exercise is the same as in the preceding exercise (transposed). Note the different setting from * to the end.

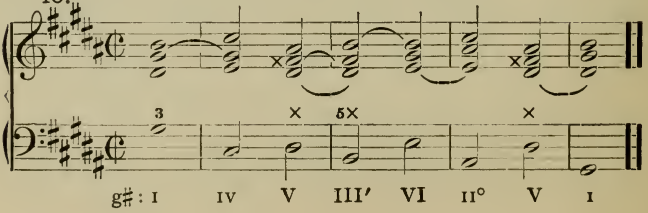
9.



* The downward motion in the bass at the end suggests that it might be well to approach the soprano of the final chord in the upward direction to make contrary motion. Taking this thought as a starting-point, we find that the position of the last four chords is thereby influenced. It is this which leads us to neglect the "common note" D between the first and second chords in the third measure, and take a lower position.

This plan of "reasoning backward" is also suggestive for the solution of many other problems.

10.



the intervals of a Third and a Fifth. It may also be said to be formed by two intervals of a Third placed one above the other. This latter is the simplest way for a child or beginner to form the different kinds of triads. For example, in the triad of C, the notes C–E form the first or lower Third, and the notes E–G form the upper Third. Tell which is the Major Third and which is the Minor Third.

(9) Similarly describe the Thirds in a Minor triad, giving for example the triad of A♭ Minor.

(10) Similarly describe the Thirds in a Diminished triad, and illustrate with a diminished triad on A♭.

(11) Similarly describe the Thirds in an Augmented triad, and give an example with an augmented triad on A♭.

(12) How do you change a Major to a Minor triad? Give an example.

(13) How do you change a Minor to a Major triad? Give an example.

(14) How do you change a Major to a Diminished triad? Give an example.

(15) How do you change a Diminished to an Augmented triad? Give an example.

(16) How do you change a Major to an Augmented triad? Give an example.

(17) How many triads are there naturally in a key?

(18) Is one any more truly in the key than another?

(19) Describe the triad upon each degree of the scale of E major.

(20) In the major mode, which triads are major, which minor? If there are any other kinds, describe them.

NOTE. Answer this by experiment — not by "reading up" on it.

(21) How many kinds of triads in any minor key? Describe the triad upon each degree of the scale of E minor.

(22) Which are the Principal Triads of a key, and why? Which are the Secondary Triads?

(23) Describe "Doubling."

(24) What is a "Common Chord?"

(25) It there any relation between an ordinary triad and the large chords extending over several octaves you sometimes see?

(26) To what does the term Position relate?

(27) How many Positions of a triad are there? Describe them.

(28) What would be the result if different Positions were unknown in music?

(29) To which part or voice does the term Position refer?

(30) When we change the Position of a chord, are any new tones introduced?

(31) Does the term Position determine the order in which the inner voices shall appear?

NOTE. If your answer is "Yes," state the order. If it is "No," state how the Position of the inner tones shall be determined.

TENDENCIES IN THE MINOR.

The Melodic and Harmonic Tendencies in the minor scale do not differ very radically from those of the major scale, though at some points they are slightly less pronounced.

The supertonic has more of an upward tendency than in major, because it is only a half-step away from the third degree, and also because the triad on the second degree is diminished, with its natural inclinations. (See "Harm. Simp.," §154.) For these reasons it is better not to double the second degree in minor when that degree is a note of a dissonant chord.

The fourth degree, being a whole step away from the third degree, inclines slightly less strongly in that direction than in major.

The sixth degree inclines rather more strongly toward the fifth degree, being only a half-step distant. It may be observed that a natural tendency in any direction is increased in proportion to the nearness, the half-step showing stronger attraction than larger intervals.

The Leading-tone in Minor has the same upward tendency as in Major.

The chief practical difference between the tendencies of Major and Minor is the undesirability of doubling the second degree in minor where it can be conveniently avoided, as explained above.

CHAPTER IV.

INVERSION.

[Section 126.]

Remember that "Inversion" relates to the Bass, or the lowest note, while "Position" relates to the Soprano, or highest note; and do not confuse these two terms.

FACILITY.

The study of Triads does not reveal any of the wonderful underlying laws such as were found in the study of the scales and intervals. But in the study of the Triads and Common Chords we have a vitally important subject, upon which will depend all future success in practical musicianship; namely, facility in forming any required Triad upon any required degree of any key, in any required Position and Inversion. This is not difficult to understand, but considerable practice is indispensable.

ADDITIONAL EXERCISES.

To secure this facility a variety of drill is necessary, which may be classified as follows:

(1) UNRELATED TRIADS IN ALL POSITIONS AND ALL INVERSIONS. For example, the student may be required to play the Triad of F♯ minor, first inversion, position of the Fifth; then the Triad of E♭ Major, second inversion, position of the Third; etc.

Special Note. When the student is required to quickly think both the inversion and the position, he is frequently confused, and his mind refuses to work at all. For this difficulty the following remedy may be found effective: When the name of the triad is mentioned (here F♯ Minor), the pupil should think, without playing, the letter-names of the triad (here F♯–A–C♯). As soon as Inversion is mentioned, he must think and play the required note (here A in the bass). When Position is mentioned, he must think and play the highest note (here position of the Fifth gives C♯ as the highest note). Then he must fill in the chord. The mind, therefore, proceeds in regular order, first to the letter-names of the notes constituting the triad, then to the left-hand, and then to the right-hand (or highest) note, and lastly to the filling-in tones. By forcing the mind to work in orderly succession, both surety and speed are soon attained. When any one step of this process is found to present difficulty, it should receive separate drill. To many, such a process as the above may seem superfluous. Experience shows, however, that in the large majority of cases the mental processes of the students need to be carefully guided.

(2) RELATED TRIADS. Instead of calling for Triads regardless of key, we will now give drill like the following:

"Think of the key of A major, form the triad upon the second degree (B: a minor triad) in the First Inversion (D in the bass) and Position of the Octave (B in the soprano)".

"In the same Position and Inversion give me the Chord upon the Fourth degree of the same key."

"The Sixth degree," etc., etc.

In this drill the chief chords of the key, the Tonic, Subdominant, and Dominant, should receive early and especial attention, for every student will need to know these chords in every major and minor key, and should be able to form them almost without conscious attention.

(3 *a*) CIRCLES AND SEQUENCES. The above drill may be carried through the circle of keys. For example, we may say, "In the ascending circle of keys (C, G, D, A, E, etc.) play successively the chord upon the third degree in direct form, and in the position of the Third."

(*b*) For the study of the chords in sequence-form the student may take the triads of the key, ascending or descending by thirds or fourths, or alternately ascending a fourth and descending a third, etc. The drill should not be too elaborate, to secure good results.

ADDITIONAL EXERCISES.

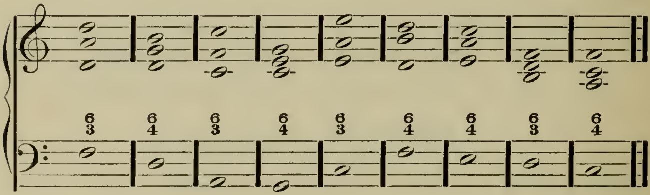
[**Section** 126.]

(1) Play, with two hands, every major and minor triad in its Direct Form and two Inversions, as shown in §28 of "Harm. Simp."

(2) In how many different ways (different combinations of position and inversion) can you write the chord of C ? Write similarly other major and minor chords.

Note. Nine different forms are possible — the three different Positions with Direct Form, and the three Positions with the first and with the second inversions. All are correct except the one requiring the first Inversion with the Position of the Third, which gives the doubled Third. In writing this exercise, try not to double the Third in any other form.

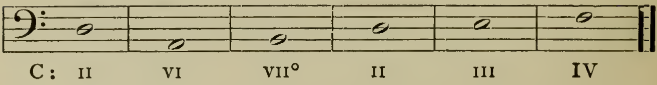
[**Section** 128.]



In writing these it is better not to double the third of the chord, or any tendency-note of the scale, particularly the seventh degree. Other positions are possible.

[**Section** 129.]

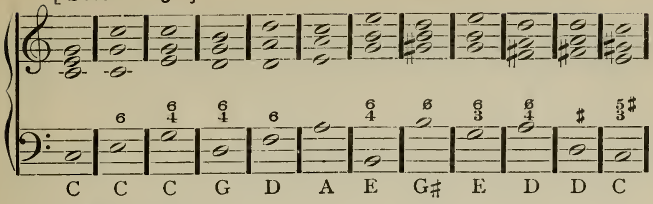
The roots are



[**Section** 130.]

The roots are, in order, C, C, A, F, F, D, G, G, E, D.

[Section 132.]



[Section 133.]

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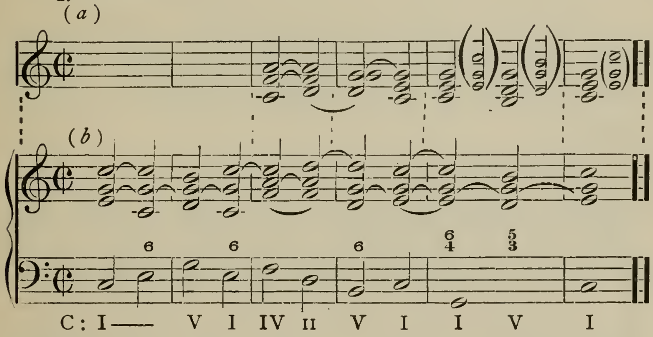

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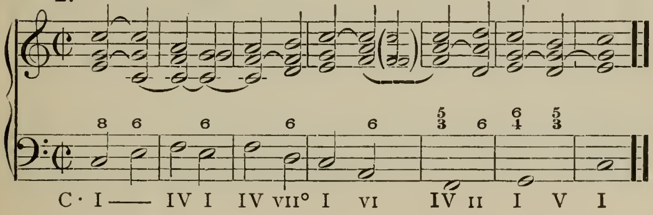

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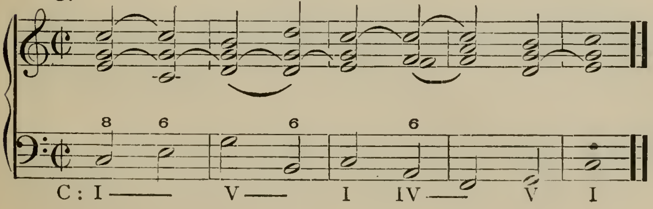

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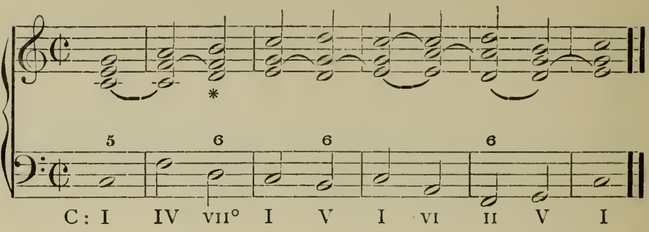

* Here the Third of the chord is doubled. It is better not to double the Leading-tone, even when it is the root of the chord. See Notes on Doubling the Third, page 62.

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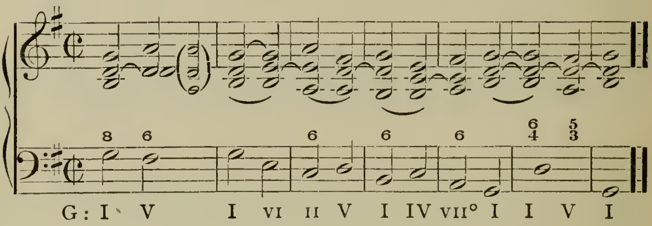

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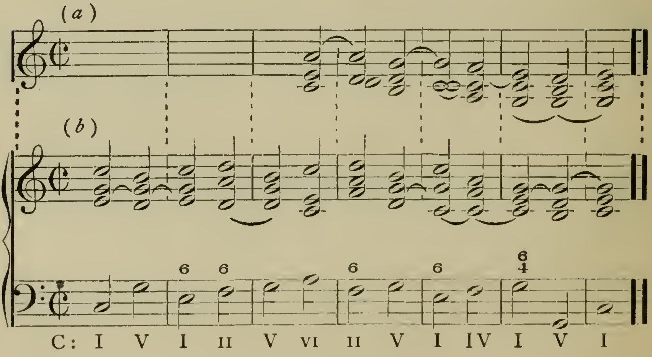

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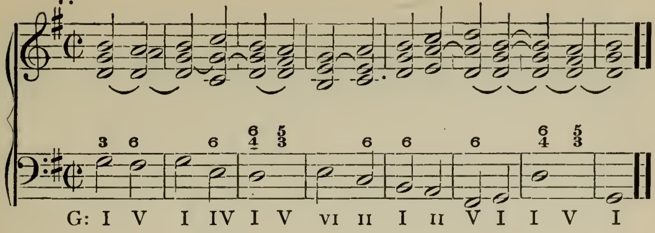

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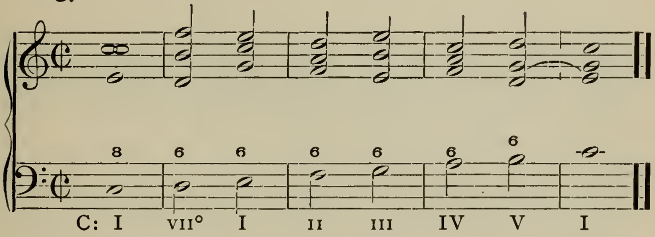

This is an unusual exercise, with so many chords in the first inversion. The constant upward movement of the bass suggests the advantage of starting rather high, in order to get contrary motion; for if we start too low, all the voices would tend to move upward, as the pupil has probably discovered. As the first chord is fixed in the octave-position, the best we can do is to try and get the second chord as high as possible. This is shown in the setting above. After this chord, the exercise is not difficult.

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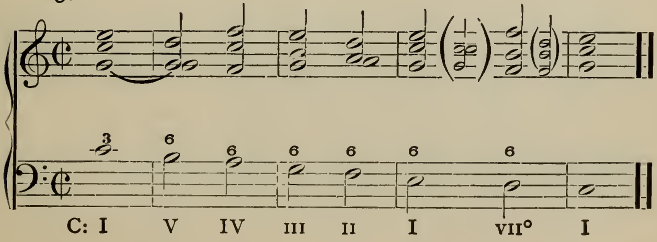

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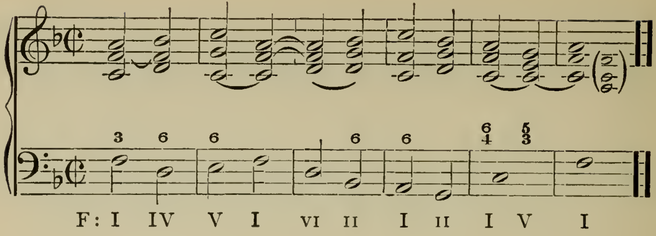

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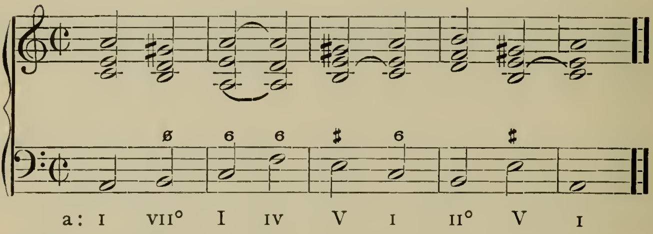
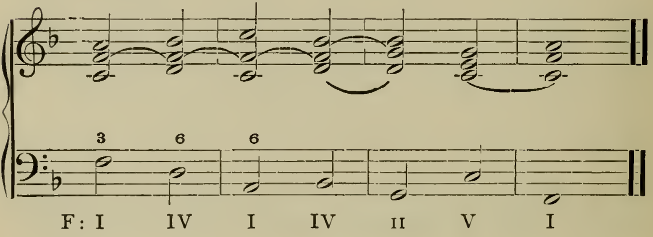


[Section 134.]

1.



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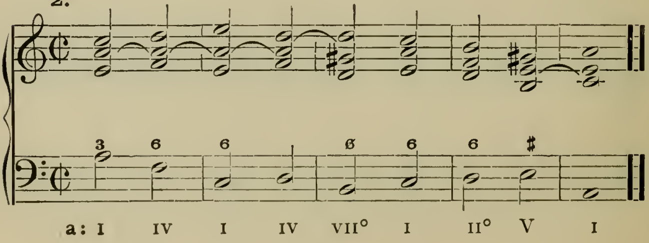

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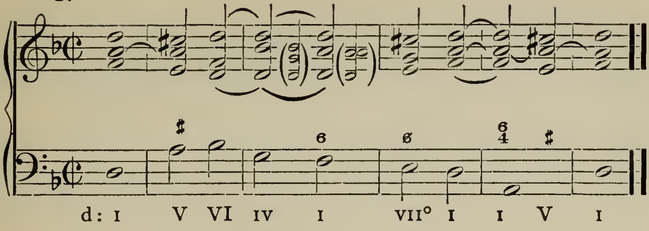
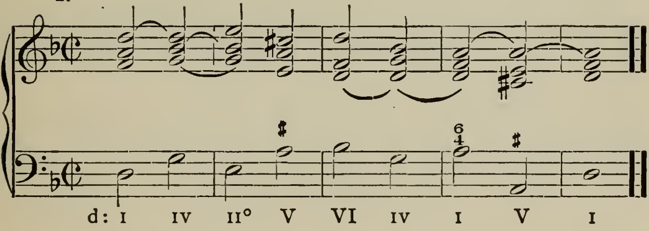
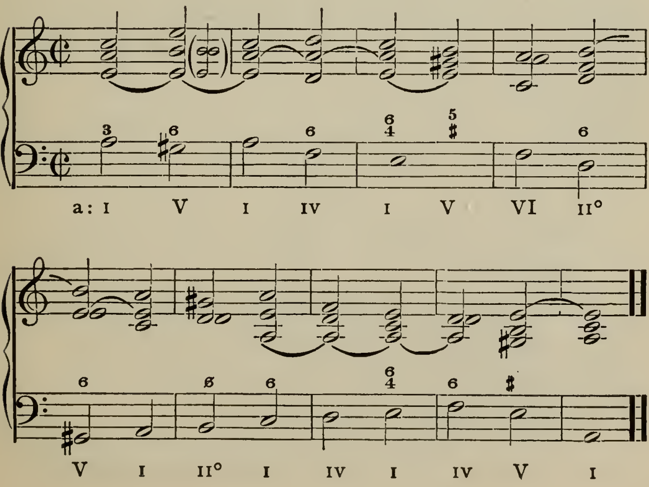

♯
6
ø
6
4
♯
d: I V VI IV I VII° I I V I

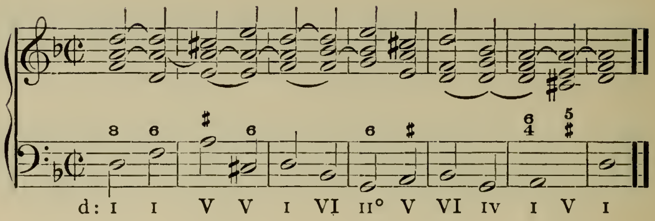
4.


♯
6
4
♯
d: I IV II° V VI IV I V I

5.


3 6 6 6 4 5 ♯ 6
a: I V I IV I V VI II°
6 ø 6 6 4 6 ♯
V I II° I IV I IV V I

6.



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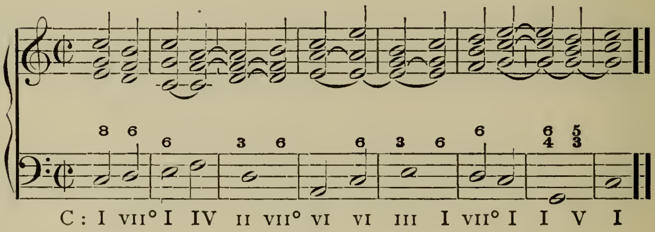

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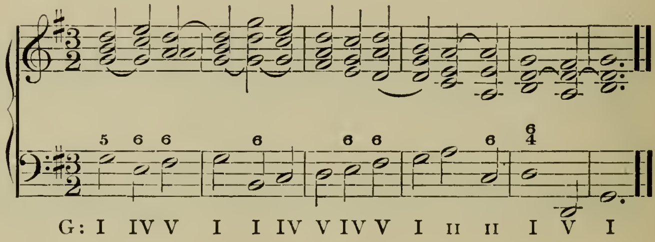

NOTES ON HIDDEN FIFTHS AND OCTAVES.

[Section 134.]

With regard to Hidden Fifths and Octaves there is considerable difference of opinion among authorities. The matter may be most easily covered, perhaps, by bearing in mind the following conclusions :

A Hidden Octave or Hidden Fifth seems to emphasize any violation of the natural tendency of a scale-tone or interval, and to bring into prominence any other questionable feature, such as the doubling of the Third of the chord, the unequal distribution of parts, or any unmelodious progression. Therefore,

(1) When Hidden Octaves or Hidden Fifths involve the violation of tendencies, or the other features mentioned above, we should try to find some other leading of the parts. But if such better leading cannot be found, either by going back a few chords and working in a different position, or by rearranging the progression itself, the Hidden Fifth was probably designed by the writer of the exercise, and should be allowed to stand.

(2) Hidden Octaves and Hidden Fifths between two outer voices should not be allowed when tendencies are violated. Between an outer and an inner voice they are less offensive.

(3) In general, the effect is less faulty when the higher voice moves stepwise and the lower voice skips, rather than vice versa.

(4) Contrary motion in or to the bass often mitigates the bad effect of a Hidden Fifth or Octave. Similarly, a sequence will excuse all but the most faulty Hidden Fifths and Octaves.

(5) When a Hidden Fifth or Octave is "suspected," the effect may be tried upon the piano, omitting the other parts of the chord. If the effect is found unusually bad, some influence has probably been violated, and it will be better to change the progression, if possible.

(6) Do not try to avoid the hidden progressions entirely, but test each by the above-mentioned principles.

Pupils usually fail to take in *all* the points in the definition in §134. To be a *Consecutive* Octave the voices must

(1) Start at the interval of an Octave,

(2) Progress in the same direction, and

(3) Arrive at an Octave.

It is not sufficient to be a *Consecutive* Octave

(1) If they do not start at an Octave,

(2) If they do not progress in the same direction,

(3) If they do not arrive at an Octave.

It is not a *Hidden* Octave

(1) If they do not progress in the same direction,

(2) If they do not start upon some interval other than the Octave.

The teacher will do well to prepare a little quiz or test upon this subject, following these lines.

NOTES ON DOUBLING.

[See also "Harmony Simplified," §§162 and 166.]

The rule against doubling the Third of the chord is one of the points inherited from former times, the strictness of which is somewhat relaxed at the present day. The writer believes that this prohibition should be directed, not so much against the Third of the chord, as against tendency-notes, especially when the tendency-notes are part of a dissonant chord.* This view is supported by the accepted treatment of the Leading-tone triad, where the Third is the best note for doubling and is the one commonly chosen for that purpose. Both the root and Fifth being tendency-notes, and the chord being dissonant (a diminished triad), which emphasizes the tendencies, the Third is the *only* suitable note for doubling. Therefore, when the Third is not a tendency-note, it may be doubled freely if any advantage in the leading of the voices can thereby be obtained.

---

* An underlying objection, though not a strong one, to the doubling of the Third in any chord, is shown in the proportion of the various tones in Nature's chord. Upon page 43 of "Harmony Simplified" is shown that the root occurs four times and the Fifth twice, while the Third appears only once in the first three octaves (8 notes). This represents the best "balance" of the tones of the chord, and indicates the relative desirability of the tones for "doubling."

Tendency-notes should not be doubled, for if both tones should follow the tendency, Consecutive Octaves or Unisons would follow; while if one should disobey the tendency, the naturalness and correctness of its progression would be destroyed.

The chief tendency-notes of the scale are the Fourth and the Seventh. But in consonant chords the tendencies are not as active as in dissonant chords. For example, in the Supertonic Triad, the downward tendency of the Fourth of the scale is not as strong as in the chord of the Dominant Seventh, which is a dissonant chord, and in which the Fourth is an "active" tone. Therefore, the Fourth of the scale may be doubled in the Supertonic Triad, whereas in the chord of the Dominant Seventh it should not be doubled.

The Leading-tone is almost never doubled, on account of its strong natural tendency upward. It may be observed, however, that as part of a consonant triad it would be less offensive to double the Leading-tone than in a dissonant chord, the Dominant Seventh-chord, for example, where its natural tendency is emphasized by a dissonance and by the expected cadence. In a sequence, however, it may be doubled even in a dissonant chord. (See Note on §332).

The tendency-notes of the scale can be so used as to hide their natural tendencies. When the tendencies are thus held in abeyance, even momentarily, the rule restricting the doubling of tendency-notes would naturally not apply to them. This fact will serve to explain apparent violations of the rule.

A most important consideration is a smooth leading of the individual voices. Unless the Third is a tendency-note, it may be freely doubled when by so doing a melodic effect is secured. Referring to Fig. 49 in "Harmony Simplified," where the Third is doubled (at ×), observe that the tenor progresses stepwise through the Third, E, in passing from F down to D, while the bass progresses stepwise from D to F. When passing through a doubled Third in this way with a melodic quality in each voice and in contrary motion, the effect is considered decidedly musicianly, and to be chosen rather than avoided, unless (as stated) a prominent tendency-note is doubled. To recapitulate:

(1) Do not double tendency-notes, if possible to avoid it. Especially do not double the Leading-tone.

(2) The doubling of a tendency-note is more offensive in a dissonant chord than in a consonant chord.

(3) Other things being equal, it is better not to double the Third of a chord. But if by doubling any advantage can be gained, and if the doubled note can be approached and left by contrary motion, we may double freely unless it is the leading-tone.

PURPOSELESS PROGRESSIONS.

In managing the voices we should try to make each part express a melodic idea. It is not well to start out from a given note and then return in the next chord. Especially, it is not well to skip from one note to another and then immediately skip back again. To simply move a voice backward and forward to fill out the chords is not artistic part-writing.

Part-writing might be judged somewhat along the following lines (in order of importance):

(1) Are any open consecutive or any undesirable hidden Octaves or Fifths to be found? Also, are the other definite rules about distribution and range of voices, best note for doubling, etc., observed?

(2) The melodic quality of the individual parts — do they really progress melodiously, or simply jump around to fill up the chords?

(3) The treatment of the Tendency-notes.

(4) Are the doubled Thirds approached by contrary motion?

In harmonizing a given bass it is not always possible to make distinctly melodious progressions or to avoid returning to the form of a previous chord, since we are restricted by the form of the exercise; yet the difference between musicianly and unmusicianly part-writing lies in the point of *making each part mean something melodically*, as much as in the *avoidance of prohibited progressions*.

The above-mentioned points are worthy of frequent reference and consideration at various periods in the development of the student.

TOPICS FOR DISCUSSION.

(1) Nature's Chord the great pattern.

(2) The Material of Music — the scale and chords.

(3) Every Consonant Interval included in the simple Major Chord: therefore, the Common Chord of C as epitomizing the principle of Consonance.

(4) No change in character of chords by inversion — a vital principle.

(5) The Key as a larger expression of the Relationship of Tones.

(6) Only one Major Key (or Tonality): the so-called different keys being merely transpositions of the same Key-relationships.

(7) The Closing Formula the basis of nearly all simple music.

(8) Larger Harmonic Variety by adding secondary triads.

(9) Flexibility and interdependence of the rules for part-writing.

SYNOPSIS OF INVERSION OF TRIADS.

- Inversion of Triads
  - Source: In Law of Inversion of Intervals.
  - Object: Variety in arrangement of tones by change of bass note.
  - Three Forms
    - Direct Form—Root in Bass. Not figured, excepting before or after an inversion on same bass note.
    - First Inversion, Third in bass. Figured $\substack{6\\3}$ or 6.
    - Second Inversion, Fifth in bass. Figured $\substack{6\\4}$.
  - To find Root
    - Continue to invert till alternate letters (or $\substack{5\\3\\1}$) appear.

SYNOPSIS OF HIDDEN FIFTHS AND OCTAVES.

- Hidden Octaves and Fifths
  - How formed
    - When two parts
    - (a) Start at interval other than 5th or 8ve;
    - (b) Move in same direction;
    - (c) Arrive at Fifth or Octave.
  - When poor
    - When higher part skips (with some exceptions).
    - When Tendencies are violated.
    - When effect is bad.
  - When good
    - When higher part moves stepwise.
    - When no Tendencies are violated.
    - When effect is good.

(10) Gradual evolution and relaxation of strictness of rules for part-writing.

(11) Strict Composition and Free Composition.

[**Section 135.**]

See pages 183 and 185 for solution of the exercises.

QUESTIONS ON INVERSIONS OF TRIADS.

(1) Define the term "Inversion."

(2) What is the meaning of the term "Direct Form"?

(3) When a triad is inverted, are any new letters introduced, or is there any change of letters?

(4) When we speak of the inversion of a triad, are the Positions of any of the higher tones determined thereby?

(5) When a triad is in its Direct Form, can the interval of a Sixth be found by counting from the bass to any one of the higher tones?

(6) When a triad is inverted, can the interval of a Fifth be found by counting from the bass to any one of the higher notes?

(7) For what are figures used?

(8) What is meant by the term "six-three"?

(9) What is meant by the term "six-four"?

(10) If the statement is true, prove that the figures $\begin{smallmatrix}6\\3\end{smallmatrix}$ always indicate that the Third of a given chord is in the bass.

(11) If true, prove that the figures $\begin{smallmatrix}6\\4\end{smallmatrix}$ always indicate that the Fifth of a chord is in the bass.

(12) How do you find the Root of an inverted triad?

(13) What is meant by two sets of figures over one bass note?

(14) What is meant by the figure 3, 5, or 8, preceding or following another set of figures over a single bass note?

(15) Can you tell, by listening, when the Third of a chord is omitted?

(16) Can you tell, by listening, when the Fifth of a chord is omitted?

(17) Can you recognize the Positions and Inversions of a chord by listening?

(18) Can you tell, by listening, when consecutive fifths or octaves occur?

QUESTIONS ON PART-WRITING.

(1) What points do we need to consider to secure good "Part-writing"?

(2) Define the different kinds of "motion" or progression in voice-leading, and give illustration of each in musical notation.

(3) Why are consecutive Octaves forbidden?

(4) How may consecutive Octaves and Fifths be avoided?

(5) Describe "Open" Position and "Close" Position, or "Open Harmony" and "Close Harmony."

(6) Describe in detail the process of connecting triads when there are notes in common.

(7) Describe the process of connecting triads when there are no notes in common.

(8) Give as many rules and suggestions as you can for Part-writing. (This question refers only to matter already covered in the lessons.)

(9) When the bass moves stepwise up or down, will a "common note" be found to connect the chords?

(10) When the bass moves a Third or Sixth, how many common notes will be found?

(11) When the bass moves a Fourth or Fifth, how many common notes will be found?

(12) When the bass moves stepwise, how should the other parts move?

(13) In respect to the harmonic value, is there any difference between a "broken" and an "unbroken" chord?

(14) How should the Seventh degree of the scale naturally progress?

(15) May it ever progress in the opposite direction?

(16) Which are the Tendency-notes of the scale?

(17) Do you ever consider them in Part-writing?

(18) Do you know any rules for resolving dissonances, particularly the Minor Seventh, the Augmented Fourth, the Diminished Fifth, and the Diminished Seventh?

(19) Can you unfailingly recognize Consecutive Octaves when there are one or more intervening parts?

(20) How can you avoid Consecutive Fifths and Octaves?

(21) Is there any rule regarding several parts moving in the same direction?

(22) Is there any rule regarding large skips?

(23) When may the rule about keeping the common note in the same voice be violated?

(24) Is the Fifth of a chord ever omitted? If so, when?

(25) Is the Third of a chord ever omitted? If so, when?

(26) What is the rule regarding the distribution of the notes in a chord?

(27) What is the usual range of the voices?

(28) What kind of music is usually represented by four-part writing?

(29) Why is four-part writing considered the chief form of study, rather than three, or two, or five-part writing?

CHAPTER V.

CHORDS OF THE SEVENTH.

[Section 147.]

The best "presentation" of a new chord requires that the class shall *hear* it as well as write and play it. The difference in sound between triads and seventh-chords and between the various kinds of seventh-chords should be brought to the attention of the class when the first exposition is made.

The Chord of the Seventh may be said to represent, as a type, the great family of dissonant chord-structures. As such, the chord suggests *motion*, as contrasted with the quality of *rest* in the consonant triad. (See §§59–63 of "Harm. Simp."). It represents effort, strife or longing, which is satisfied when "resolved" or led in a natural way into the condition of consonance.

For the student, as for the scientist, it forms one of the most important parts of harmony-study, for it epitomizes within itself most of the principles of musical structure and the relations of the tone-world.

[Section 150.]

The principles described in §§150–159 of "H. S." are among those most vital to the subject. They should be thoroughly and repeatedly studied and discussed. Facility in forming and recognizing the chord of the Seventh is most necessary, and appropriate drill should be continued for several weeks. Each exercise, excepting those in Part-writing, should be done *many times* both in writing and at the keyboard or diagram, the latter being necessary for students who work "by ear" rather than by reason.

Throughout the "exposition" of the chord of the

Dominant Seventh every pupil should follow, with his hand upon the Diagram, each point made by the teacher, from the building of the chord to the resolution.

[Section 153.]

The discussion of the tendency of Continuity is not necessary at this time, as it has no reference to the treatment of the Seventh-chords. It is mentioned here only to give a more complete statement of the Tendencies.

[Section 157.]

The word "Dominant" requires the chord to be in the form of a Major Third, Perfect Fifth, and Minor Seventh, counting from the given Root.

Excepting in the first chord of an exercise, the figures *never indicate which note is highest*, *nor the order of the inner voices.* The figures simply tell which notes are to be used, leaving the order and Position to be determined by our own judgment.

It may be observed, that in resolving the augmented and diminished intervals (which may be called the "extreme" forms), *both* tones progress; while in resolving dissonant major and minor intervals (which may be called less extreme forms), it is sufficient if *one* tone progresses. For example, in resolving the chord of the Dominant Seventh on G, in the diminished Fifth (B–F) both tones progress, while in the minor Seventh (G–F) only one tone (F) progresses.

[Section 158.]

The Third and Seventh of the Dominant Seventh-chord are called Tendency-tones or "active tones," the progressions of which are fixed. The other two tones (Root and Fifth of the Dominant Seventh-chord), having no tendencies, may be called "neutral" or inactive tones. They have no fixed progression, but may progress either upward or downward, or may remain stationary, as may make the best effect. The Fifth usually progresses downward in the resolution, since it is better to double the *Root* of a chord rather than the Third; while the Root, being the "common note," usually remains stationary.

ADDITIONAL EXERCISES.

[Section 159.]

Compare the tendencies (melodic and harmonic) of the chords of the Seventh upon the seven degrees of the scale. This will show the preponderance of tendencies in the Dominant Seventh and its incomplete form, the Diminished Seventh-chord on the seventh degree. (See "H. S.," §211.) Incidentally, it will show why the Dominant Seventh-chord "dominates" the key, and why it is called "dominant."

[Section 160.]

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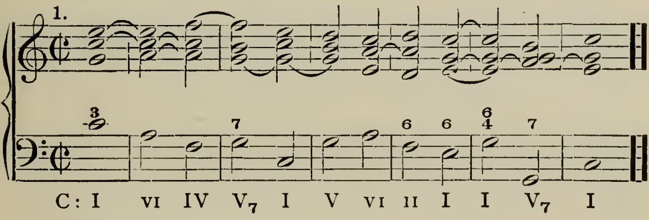

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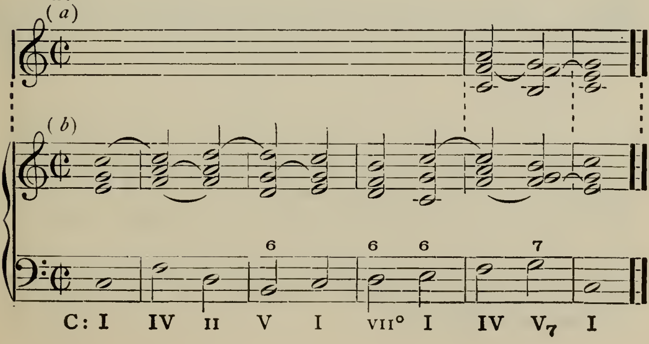

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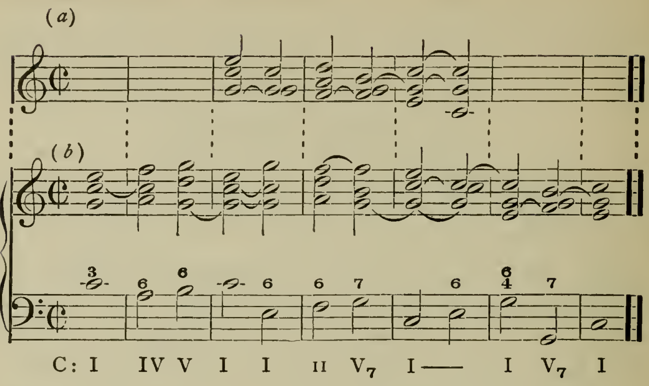

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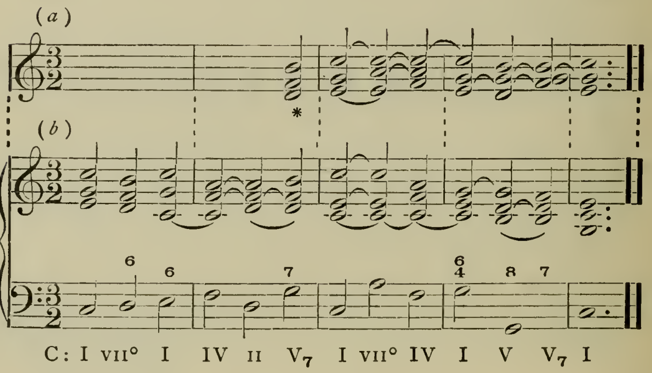

At * the violation of the downward tendency of F is mitigated by the contrary motion in the bass and by the fact that it is not a final cadence at this point ; also (and more especially) because E, the note of resolution of F, is taken by the tenor instead of the alto. This is called " resolution by *substitution*."

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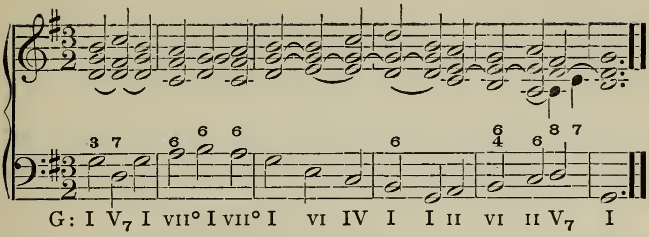

[Section 170.]

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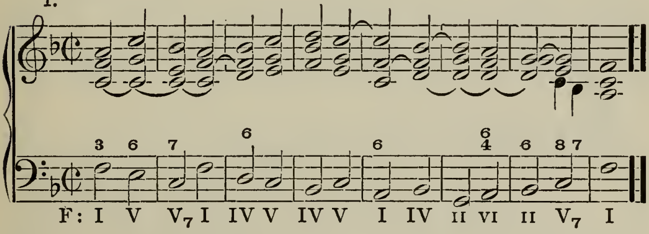

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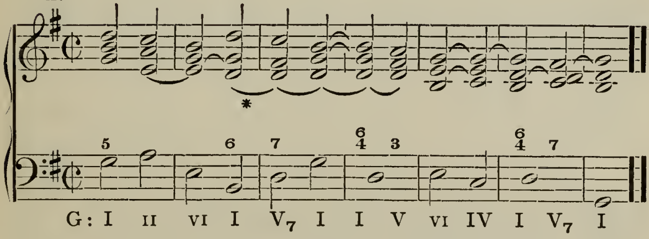

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* Observe that the Diminished 5th may follow the Perfect 5th, as explained in "Harmony Simplified," §168, foot-note.

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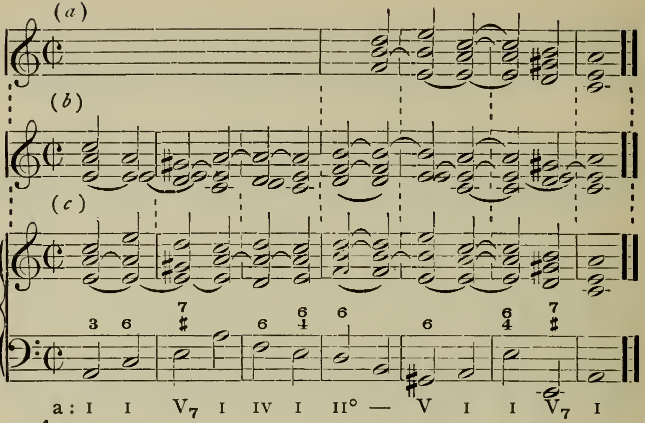
(a)
(b)
(c)
3 6 7♯ 6 6/4 6 6 6/4 7♯
a: I I V7 I IV I II° — V I I V7 I

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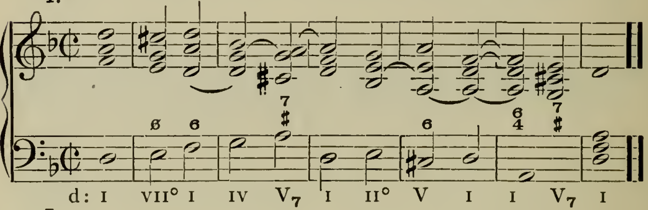
ø 6 7♯ 6 6/4 7♯
d: I VII° I IV V7 I II° V I I V7 I

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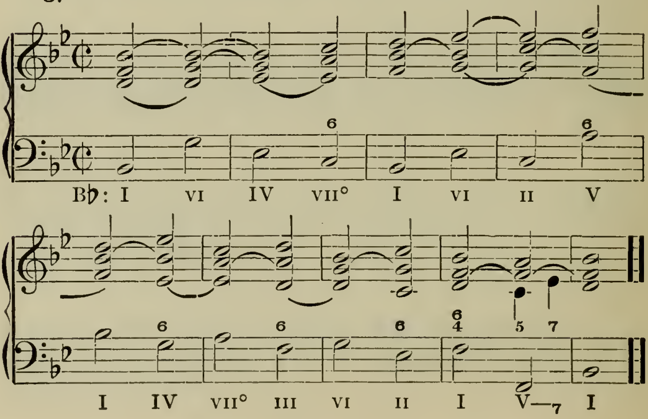
6 6
B♭: I VI IV VII° I VI II V
6 6 6 6/4 5 7
I IV VII° III VI II I V—7 I

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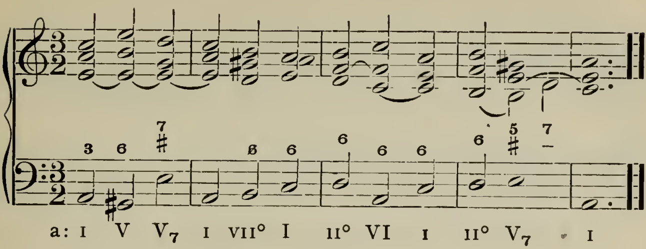

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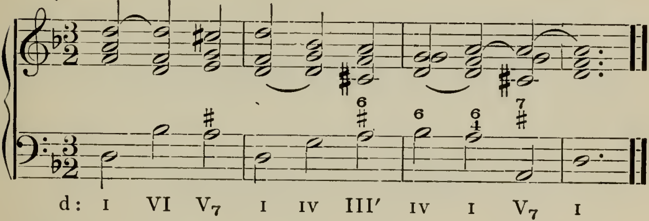

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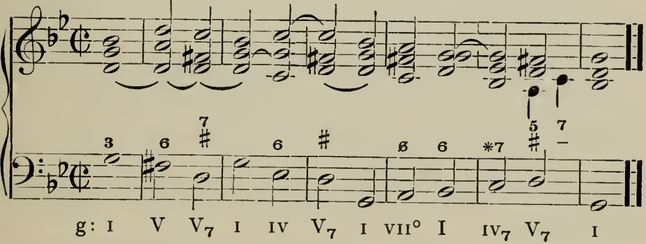
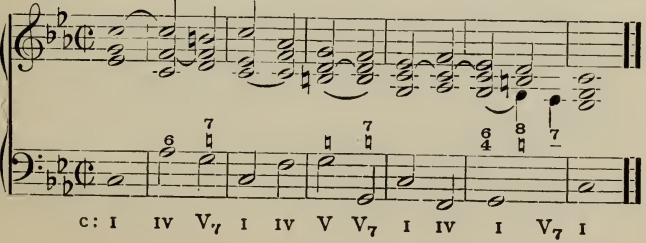


* Originally written with figure 6, giving a slightly different ending.

9.



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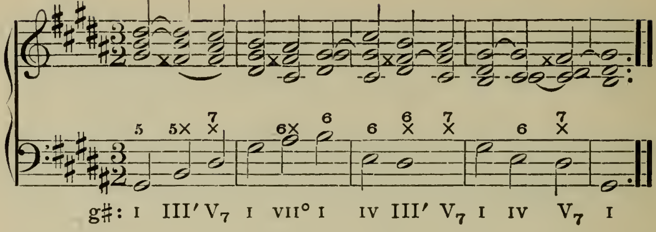


[Section 171.]

For synopsis of the Dominant Seventh-chord, see page 112.

TOPICS FOR DISCUSSION.

(1) The two great divisions of music — Consonance and Dissonance.

(2) Classification and (differing) treatment of Dissonant and Consonant Chords — ("Resolution" and "Connection").

(3) Laws of Resolution.

(4) Tendencies — Harmonic and Melodic, and their application.

(5) Reciprocal Relations of Augmented and Diminished intervals, as shown in the treatment of the Dominant 7th-chord.

(6) How the character of chords is unchanged by inversion, as illustrated in the Dominant 7th-chord.

(7) Relation of Tonic and Dominant the cornerstone of modern music.

(8) Why called "Dominant."

(9) Laws of Form as outgrowth of Relations contained within the scale and the key.

QUESTIONS ON CHORDS OF THE SEVENTH.

(1) What is the process of chord-building, and how far may it be carried?

(2) How is a chord of the Seventh formed?

(3) Name the letters required to form a chord of the Seventh upon the note B.

(4) Name the letters required to form chords of the Seventh upon the following notes: F; D; A; E; C; G; B♭; F♯; E♭; C♯.

(5) If a given chord is to be purely "in the key," what restriction is observed?

(6) How many tones are there in a triad?

(7) How many tones in a chord of the Seventh?

(8) How does a chord of the 7th differ from a "common chord" which also has four tones?

(9) How many chords of the 7th may be formed in a key?

(10) How do the chords of the 7th in a key differ one from the other?

(11) Define the term "Position" as applied to chords of the 7th?

(12) In how many Positions may a chord of the 7th be placed?

(13) To which part or voice does the term Position refer?

(14) In the chord of the Dominant 7th upon the root E, in the Position of the 5th, which note will be highest?

In the chord of the Dominant 7th upon the root E, in the Position of the 3rd, which note will be highest?

In the chord of the Dominant 7th upon the root E, in the Position of the 7th, which note will be highest?

In the chord of the Dominant 7th upon the root E, in the Position of the octave, which note will be highest?

SYNOPSIS OF PART–WRITING.

- Part-writing
  - Two means of connecting Chords
    - Progression: or Connection of Consonant Chords
      - Freedom
        - To progress in various direction; i.e., of choice between several chords.
        - By Conjunctive progression (successive letters); or by Disjunctive progression (skips).
        - As compared with dissonant chords, consonant chords are less influenced by tendency-tones, since dissonance emphasizes tendencies.
      - Chord-Relationship
        - Apparent or Surface
          - Physical relationship through common note.
        - Inner, or under the Surface
          - Underlying relationship of common key, but without common note.
    - Resolution: or Treatment of Dissonant Chords
      - Not Free
        - Usually restricted to one most natural resolution; other resolutions being more forced and unnatural.
      - Tendencies
        - Melodic:
          - 4th degree to descend.
          - 7th degree to ascend.
          - “Accidentals” to “continue.”
        - Harmonic:
          - Augm. intervals to expand.
          - Dim. intervals to contract.
      - Resolutions
        - Cadencing:
          - To chord a 4th higher.
        - Deceptive:
          - To other scale-degrees.
          - To other keys.

- General laws governing both Resolution and Progression
  - Direct rules
    - 1. Avoid consecutive 5ths and 8ves.
    - 2. Avoid parallel motion in all four parts.
    - 3. Avoid doubling the leading-tone.
  - Less positive rules
    - 1. Observe the tendencies wherever possible.
    - 2. Observe the common note — usually.
    - 3. Avoid doubling a tendency-note.
    - 4. Observe the usual range of the voices.
  - Other Influences
    - Melodic effect of each part.
    - Prominence of outer parts.
    - Distribution of parts.
    - Advantage of smooth progressions.

QUESTIONS ON CHORDS OF THE SEVENTH (Cont.)

(15) Does the term "Position" determine the order, or placing, of the "inner" parts?

NOTE. If your answer is "Yes," state the order. If it is "No," state how the Position of the inner tones will be determined.

(16) How many chords of the Dominant 7th may be formed in any one key?

(17) State which are "Principal" and which are "Secondary" chords of the 7th.

(18) Describe the intervals required to form a chord of the Dominant 7th.

(19) What is the difference in construction between a chord of the Dominant 7th and a chord of the 7th upon the 2nd degree of the scale?

(20) Describe the intervals in the chord D–F♯–A–C, and state which intervals are dissonant.

(21) How is a Dominant 7th-chord sufficient to indicate the key in which it is written, without the assistance of any other chord?

(22) What do you understand by "Resolution?"

(23) How is an Augmented Interval resolved? Why?

(24) How is a Diminished Interval resolved, and why?

(25) To what triad will any given chord of the Dominant 7th most naturally resolve?

(26) What do you understand by the term "Chord of Resolution"?

(27) Does the Dominant. 7th-chord in a minor key fully agree with the signature? How is this shown in the figuring of the chord?

(28) In resolving the chord of the Dominant 7th to the Tonic, will the position of the Dominant chord determine the position of the chord of resolution? If so, why?

(29) Which note or notes may be omitted in the chord of the Dominant 7th, and why? Which are best for doubling, and why?

(30) In the resolution of the Dominant 7th-chord to the Tonic, in four-part writing, what omission is often made in one of the two chords, and why?

(31) What is the difference between the Dominant 7th-chord *in* (the key of) G, for example, and the Dominant 7th-chord *on* G?

(32) How is the key definitely indicated by the chord of the Dominant 7th?

(33) Does the chord of the Dominant 7th or its figuring indicate whether the key is major or minor? If so, how?

(34) How many kinds of tendencies are considered in the resolution of the chord of the Dominant 7th?

(35) Describe the principle of Harmonic Tendencies as applied to the intervals found in the above chord of the 7th. (See Section 20.)

(36) Describe the Melodic Tendencies of the tones in the chord of the Dominant 7th.

(37) What is the first requirement for an Harmonic Tendency?

(38) Do you observe that the chief tendencies of both kinds fall upon the same tones?

(39) Upon which degrees of the scale do these tendencies, as just mentioned, usually fall?

(40) What quality is it which makes the Melodic Tendencies of the 4th and 7th of a scale more prominent in the chord of the 7th than in the various major and minor triads in which these tones are also found?

(41) Under what great division may all chords of the 7th be classified?

(42) How does this correspond with the principle of Consonant and Dissonant Intervals?

(43) Describe the resolution of the Dominant 7th-chord on E.

(44) Are there any positive, unbreakable rules about Part-writing? If so, what are they?

(45) What do you consider the other directions about Part-writing?

(46) Why are they called "Influences," rather than Rules?

(47) Do the above influences always agree?

(48) If not, what happens when they disagree?

(49) What exception is allowed to the rule forbidding consecutive 5ths?

(50) Can you distinguish the chord of the Dominant 7th from a Common chord by hearing?

(51) Can you feel the demand for progression in the Dominant 7th-chord, and the sense of rest when it is resolved?

(52) Can you sing at will any of the tones, particularly the inner voices, in the Dominant 7th-chord, or in its resolution to the Tonic?

(53) What do you understand by the term "purposeless progressions"?

(54) Which notes of a Dominant 7th-chord may be omitted, and when?

(55) Which notes of a Dominant 7th-chord should not be doubled, and why?

(56) What is the "Tendency of Continuity"?

(57) Into what two classes may all chords be divided?

(58) What do you understand by the term "Reciprocal Relations" of complementary intervals?

(59) How is the principle illustrated in the resolution of the Dominant 7th-chord?

(60) Why is the term "dominant" applied to this chord?

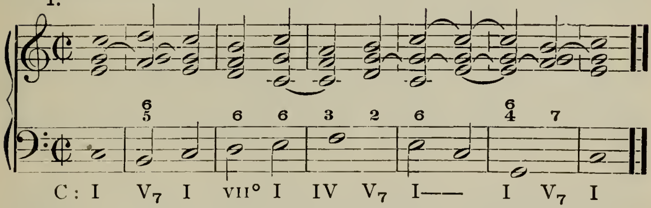
(61) What human qualities are pictured by dissonant and consonant chords?

CHAPTER VI.

INVERSIONS OF THE CHORD OF THE SEVENTH.

[Section 173.]

1.



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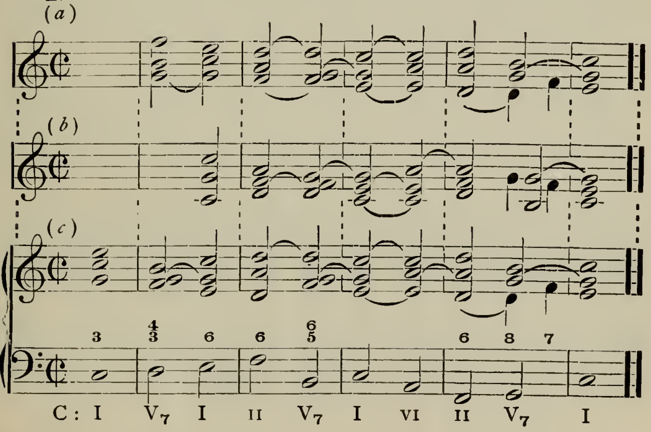

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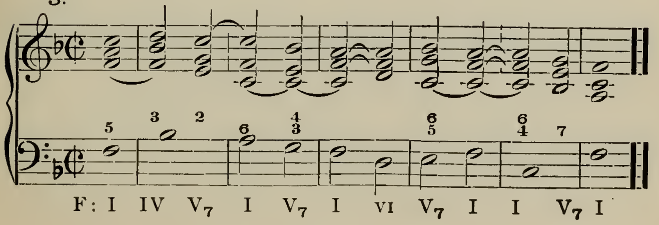

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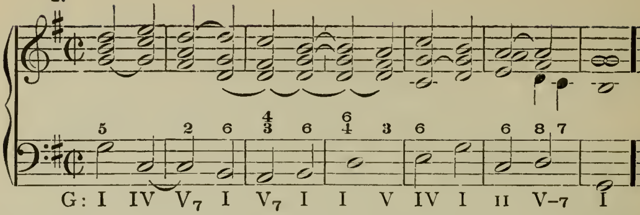
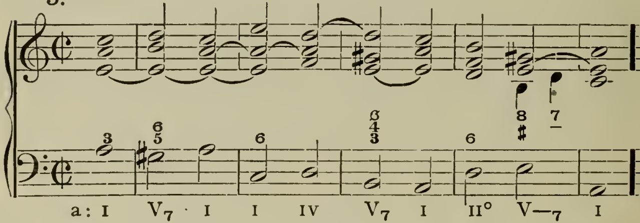
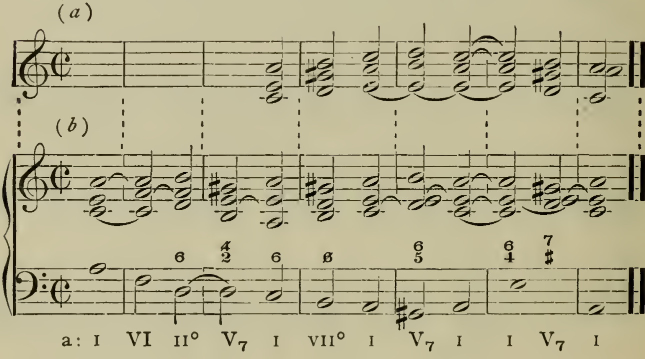

4 3
6 4
G: I IV V7 I V7 I I V IV I II V–7 I

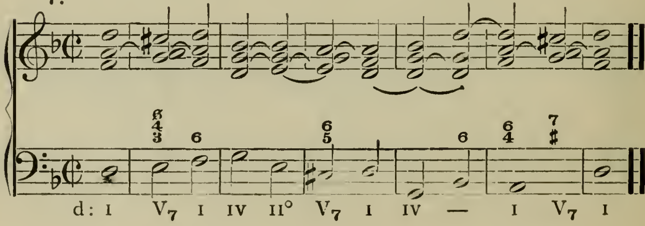
5.


3
6 5
6
8 4 3
6
8 ♯
7
a: I V7 I I IV V7 I II° V–7 I

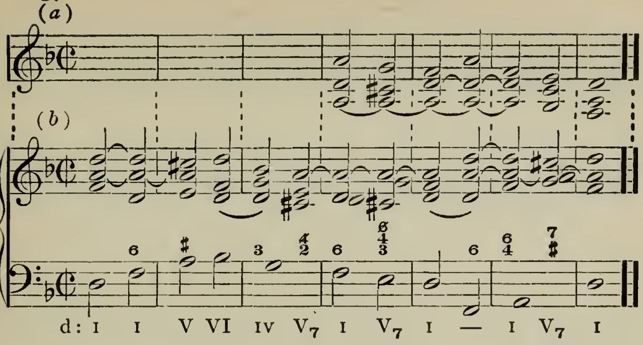
6.


(a)
(b)
6
4 2
6
8
6 5
6 4
7 ♯
a: I VI II° V7 I VII° I V7 I I V7 I

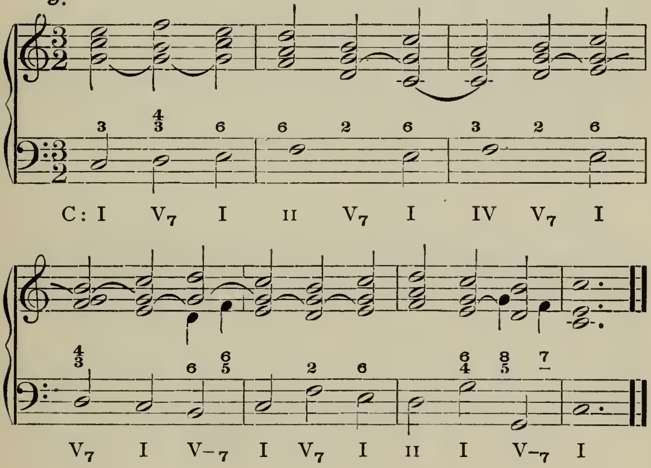
7.


8 4 3
6
6 5
6
6 4
7 ♯
d: I V7 I IV II° V7 I IV — I V7 I

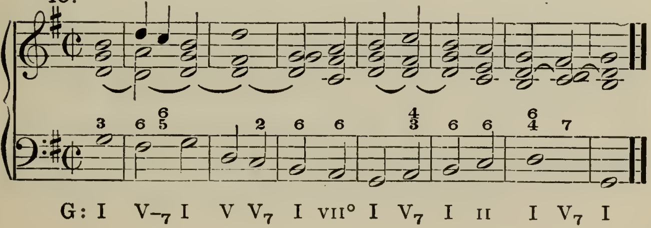
8.


(a)
(b)
6
♯
3
4 2
6
6 4 3
6
6 4
7 ♯
d: I I V VI IV V7 I V7 I — I V7 I

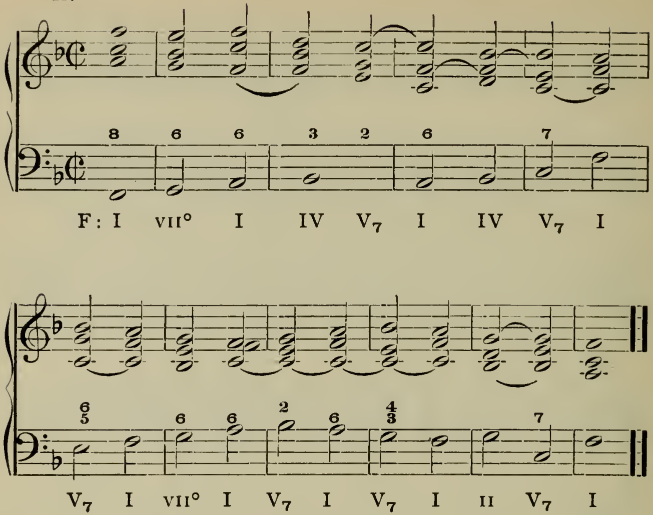
9.


4 3
C: I V7 I II V7 I IV V7 I
4 3
6 5
6 4
8 5
V7 I V–7 I V7 I II I V–7 I

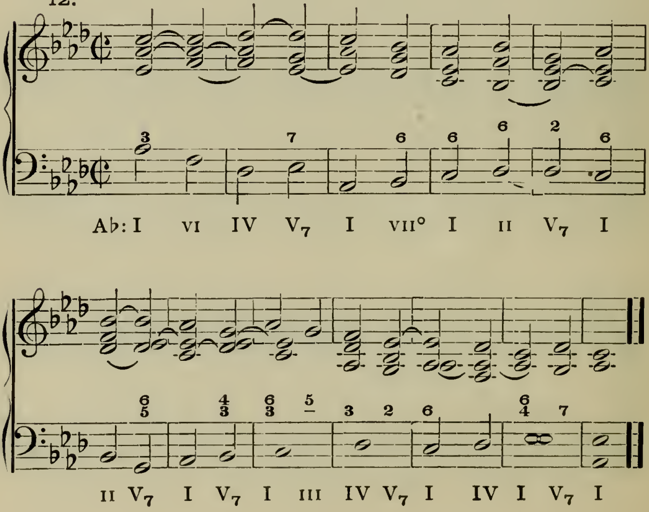
10.


6 5
4 3
6 4
G: I V–7 I V V7 I VII° I V7 I II I V7 I

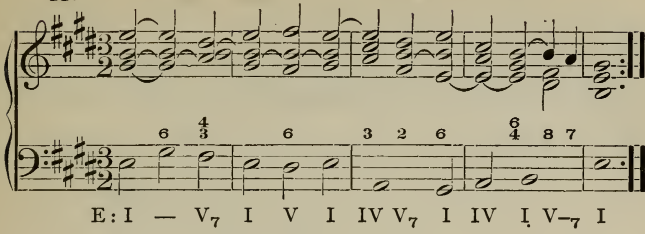
11.


8 6 6 3 2 6 7
F: I vii° I IV V7 I IV V7 I
6/5 6 6 2 6 4/3 7
V7 I vii° I V7 I V7 I ii V7 I

12.


3 7 6 6 6 2 6
A♭: I vi IV V7 I vii° I ii V7 I
6/5 4/3 6/3 5/– 3 2 6 6/4 7
ii V7 I V7 I iii IV V7 I IV I V7 I

13.



[**Section** 175.]
See page 184, etc.

QUESTIONS ON INVERSIONS OF 7TH-CHORDS.

(1) Define the term Inversion as related to the chord of the 7th, and compare it with the Inversion of Triads.

(2) How many inversions may be formed with the chords of the Dominant 7th?

(3) To which tone in any given chord does the term Inversion refer?

(4) Does the inversion indicate the order in which the higher parts are to appear?

(5) Write the chord of the Dominant 7th on the root E, in its 2nd inversion.

(6) Write the chord of the Dominant 7th, in its 1st inversion, on the root E.

(7) Write the chord of the Dominant 7th on the root E, in its 3rd inversion.

(8) Write the chord of the Dominant 7th in the 1st inversion and Position of the 5th, on the root E.

(9) Write the chord of the 7th on the root E, in the 1st inversion and Position of the Octave.

(10) Write the chord of the Dominant 7th on the root E, in its 2nd inversion and Position of the 3rd.

(11) Which inversion most easily results in the doubling of the leading-tone?

(12) By what "short cut" can you instantly detect the root of an inverted chord of the seventh, either from the figures or notes?

CHAPTER VII.

SECONDARY SEVENTH-CHORDS.

[Section 178.]

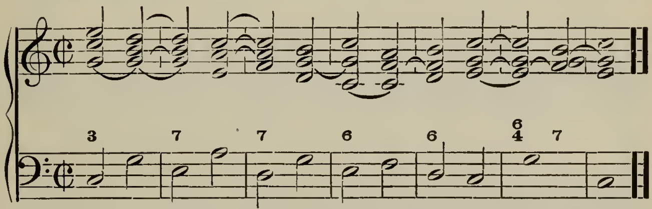
Additional Exercises.

KEYBOARD DRILL. (*a*) Take the scale of D major, form the chord of the 7th upon each degree, and describe each and every interval as above. Proceed similarly with every other major scale.

(*b*) Proceed similarly with six minor scales.

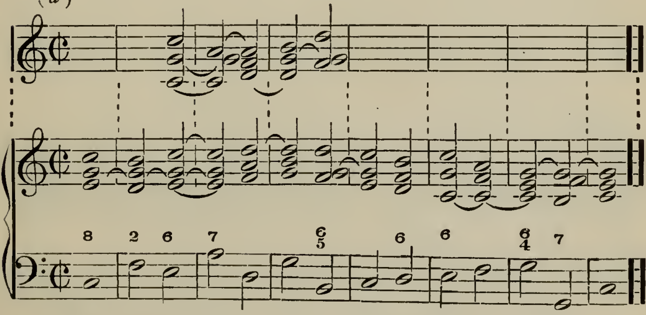
[Section 184.]

1.



2.

(*a*)



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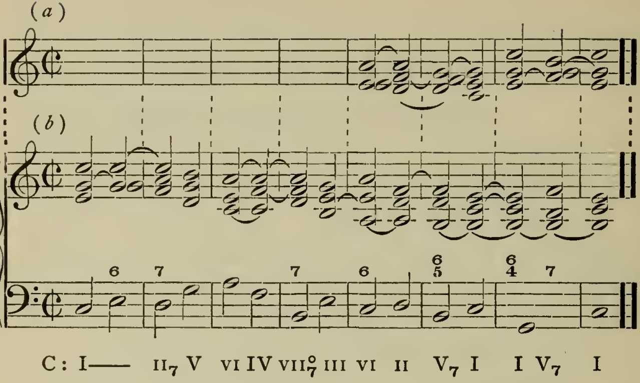
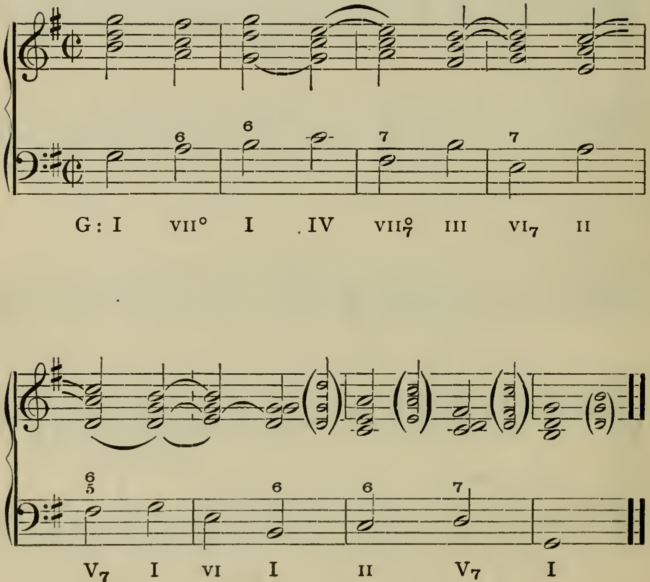
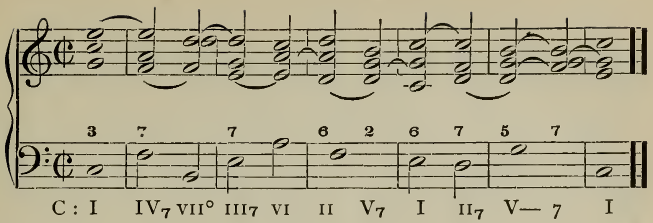

(a)
(b)
6 7 7 6 6/5 6/4 7
C: I—— II7 V VI IV VII°7 III VI II V7 I I V7 I

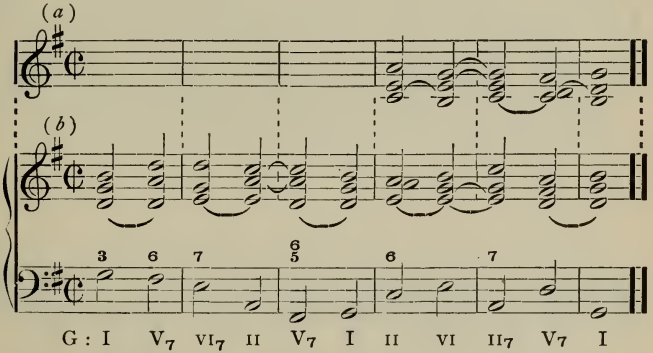
4.


6 6 7 7
G: I VII° I IV VII°7 III VI7 II
6/5 6 6 7
V7 I VI I II V7 I

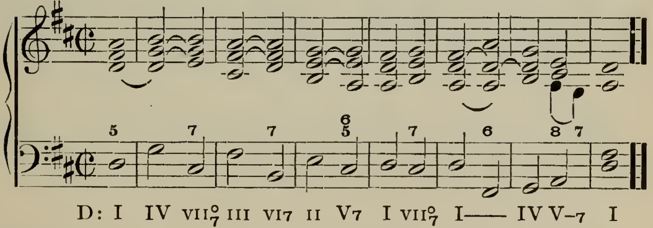
5.


3 7 7 6 2 6 7 5 7
C : I IV7 VII° III7 VI II V7 I II7 V— 7 I

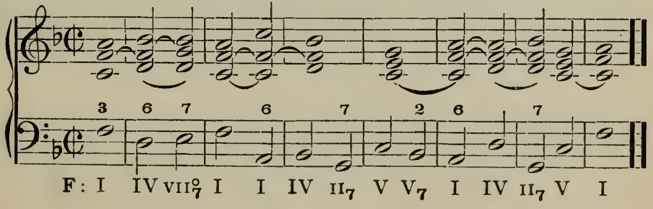
6.


(a)
(b)
3 6 7 6 5 6 7
G : I V7 VI7 II V7 I II VI II7 V7 I

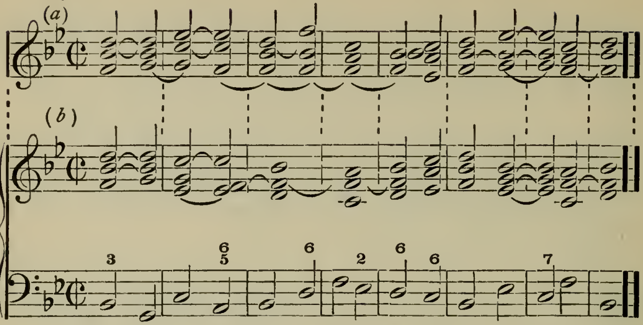
7.


5 7 7 6 5 7 6 8 7
D: I IV VII°7 III VI7 II V7 I VII°7 I—— IV V–7 I

8.

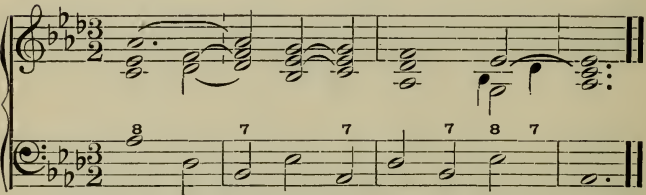

3 6 7 6 7 2 6 7
F: I IV VII°7 I I IV II7 V V7 I IV II7 V I

9.



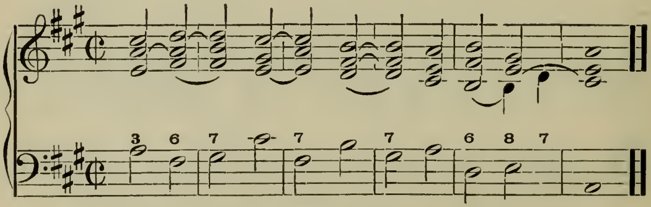
B♭ : I VI II V$_7$ I I V V$_7$ I VII° I IV II$_7$V I

10.



A♭ : I IV II$_7$ V I$_7$ IV II$_7$ V —$_7$ I

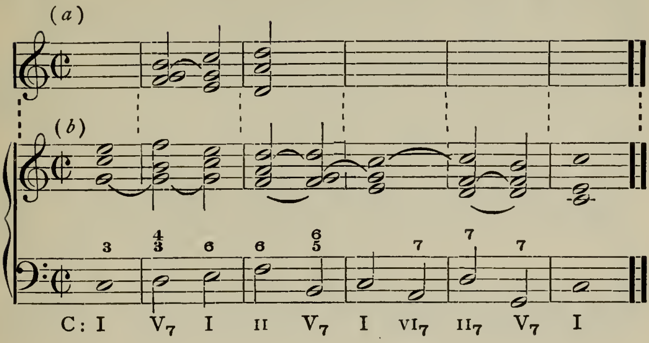
11.



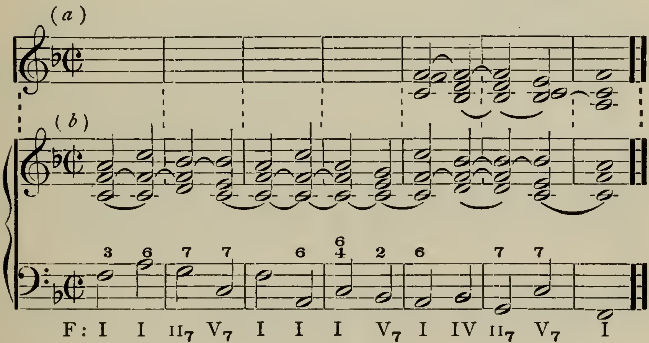
A : I IV VII° VI$_7$ II VII$^{\circ}_7$ I II V—$_7$ I

[Section 186.]

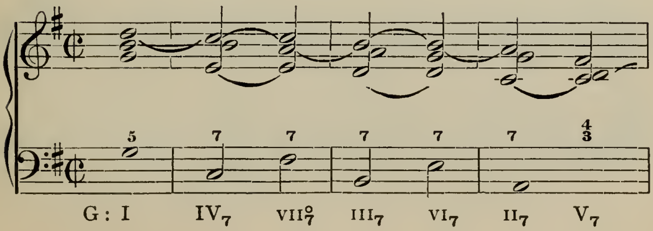
1.

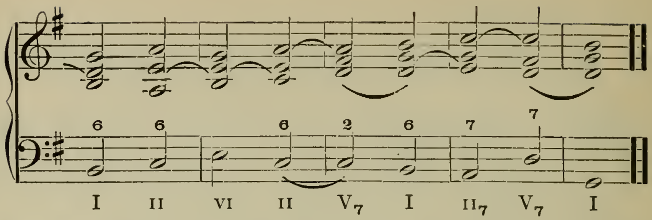

(a)
(b)
3 $\frac{4}{3}$ 6 6 $\frac{6}{5}$ 7 7 7
C : I V_7 I II V_7 I VI_7 II_7 V_7 I

2.


(a)
(b)
3 6 7 7 6 $\frac{6}{4}$ 2 6 7 7
F : I I II_7 V_7 I I I V_7 I IV II_7 V_7 I

3.


5 7 7 7 7 7 $\frac{4}{3}$
G : I IV_7 VII°_7 III_7 VI_7 II_7 V_7



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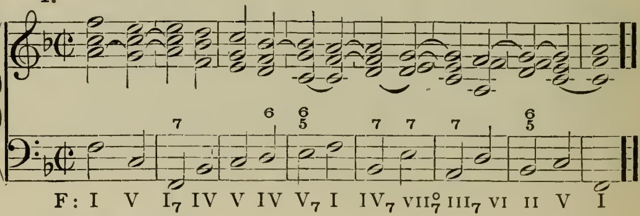
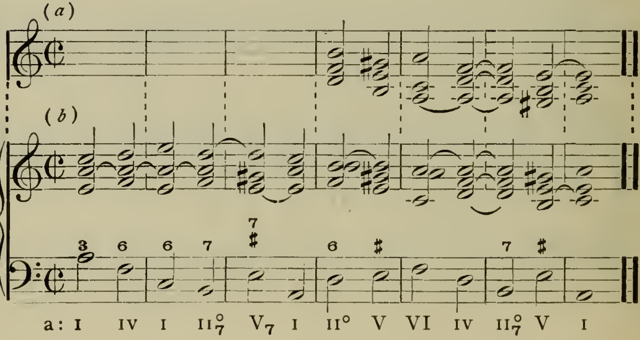


[Section 188.]

1.



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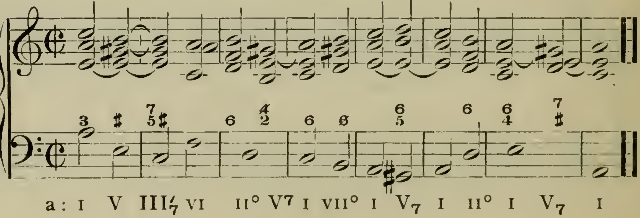
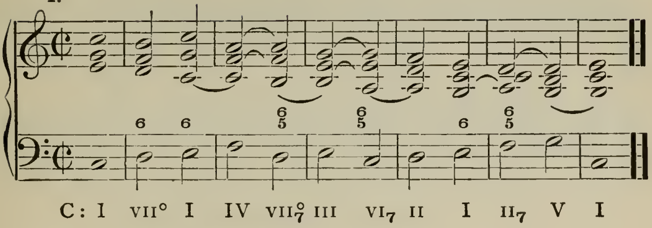

3 ♯ 7 5♯ 6 4 2 6 ø 6 5 6 6 4 7 ♯
a: I V III/7 VI II° V7 I VII° I V7 I II° I V7 I

[Section 189.]

1.



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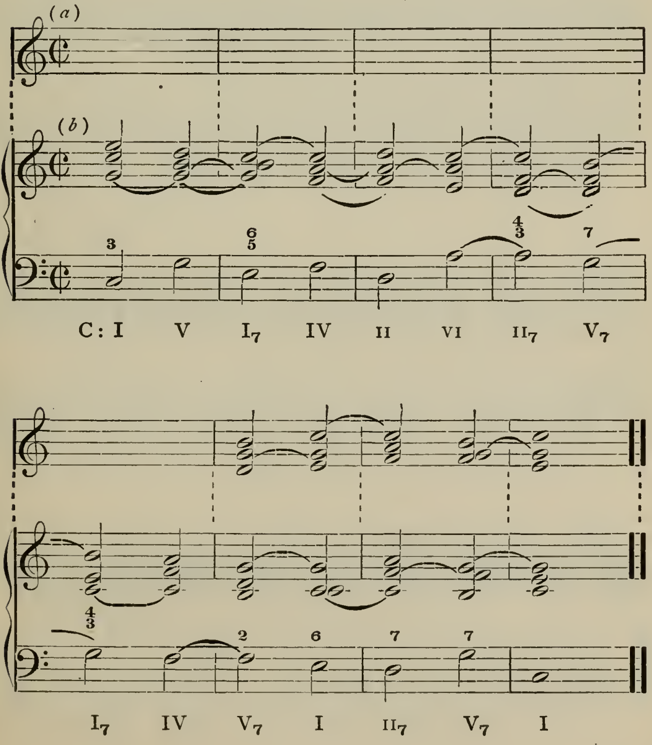

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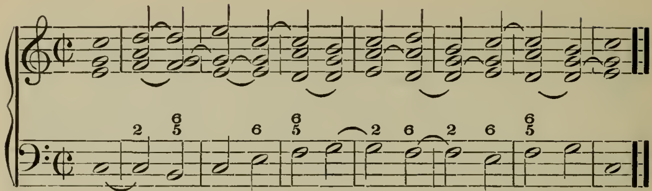
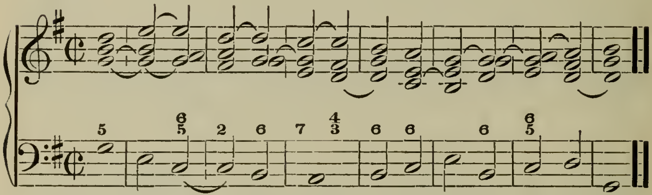


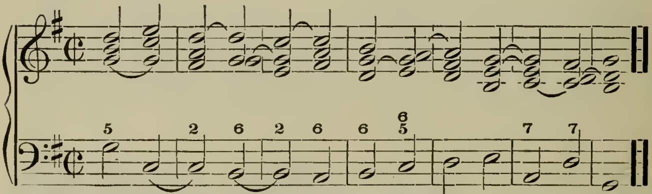
C: I II7 V7 I I II7 V VI7 II V7 I II7 V I

4.



G: I VI II7 V7 I II7 V7 I II VI I II7 V I

5.



G: I IV V7 I IV7 VII° I II7 V VI II7 V7 I

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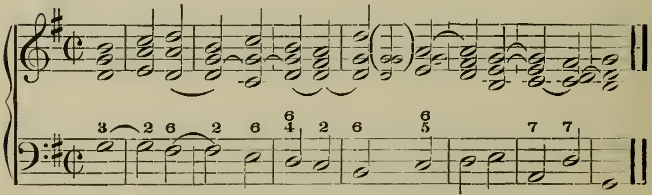

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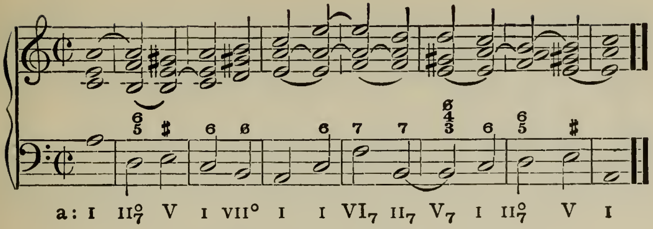


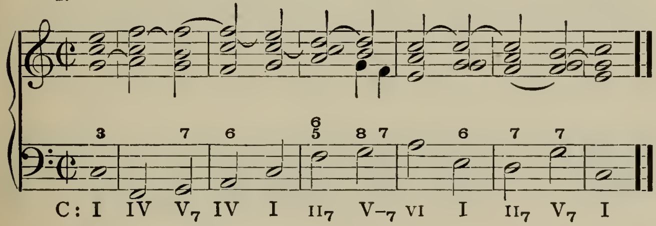
ELABORATED CADENCES.

[Section 191.]

After studying the Cadences and Closing Formula, the exercises may be profitably continued by elaborating the work melodically and rhythmically, calling out the talent for original thought. Great variety is possible. Examples of elaborated cadences should also be sought in Analysis. This work may be made the first step in the systematic study of Improvisation.

[Section 196.]

1.



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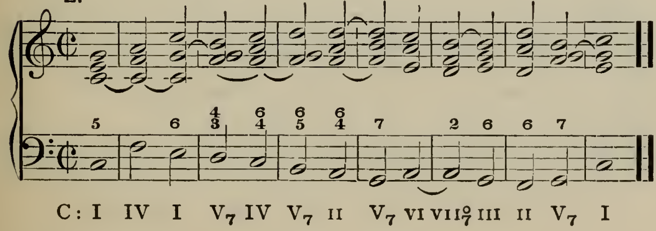

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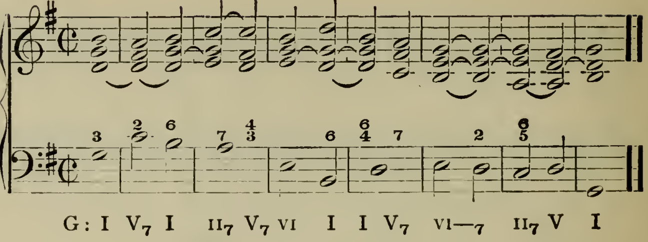
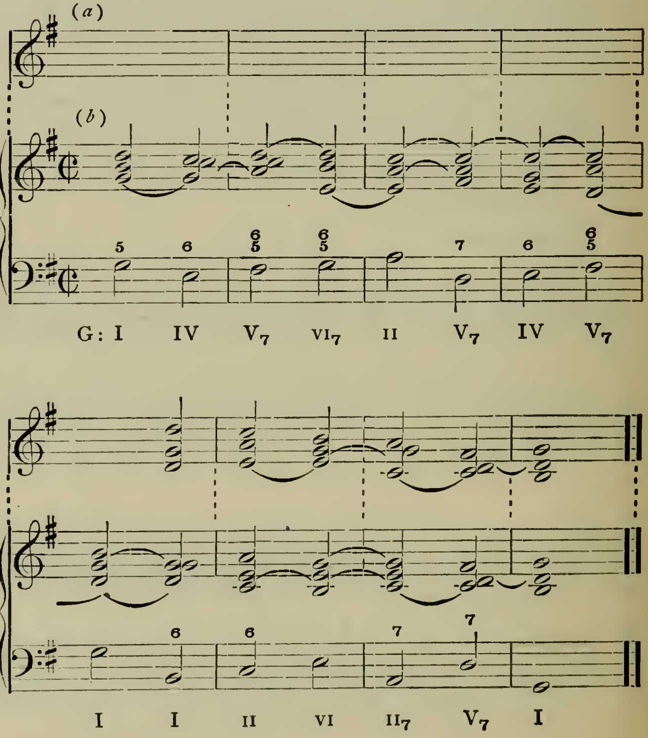
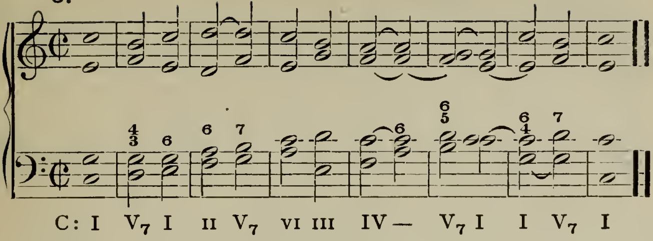

4 3
6 4
6 5
G: I V7 I II7 V7 VI I I V7 VI—7 II7 V I

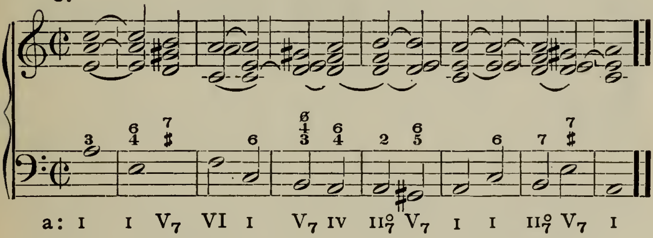
4.


(a)
(b)
5
6
6 5
6 5
7
6
6 5
G: I IV V7 VI7 II V7 IV V7
6
6
7
7
I I II VI II7 V7 I

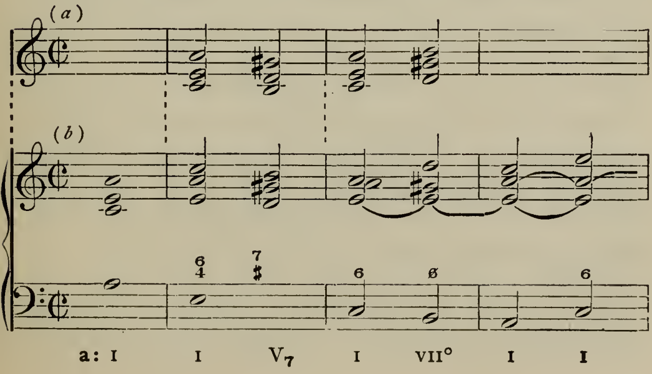
5.

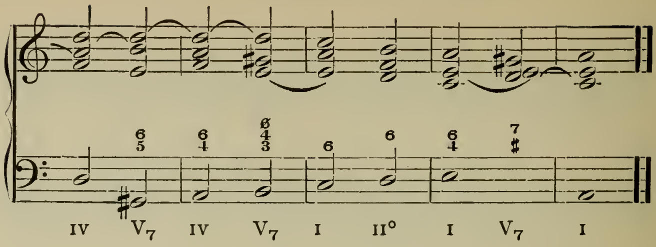

C: I V7 I II V7 VI III IV — V7 I I V7 I

6.


a: I I V7 VI I V7 IV II°7 V7 I I II°7 V7 I

7.


(a)
(b)
a: I I V7 I VII° I I



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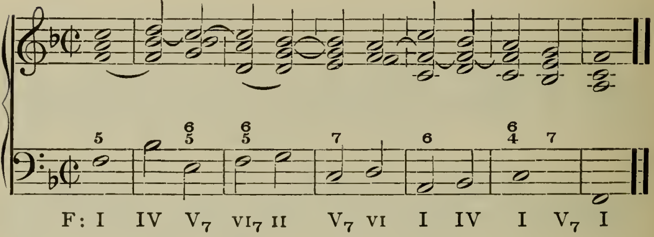


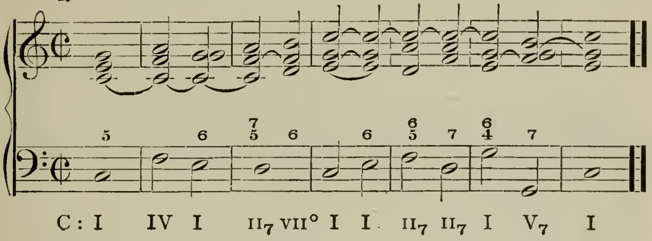
[**Section 200.**]

As we go into more difficult work, it is more frequently necessary to double the Third, to carry the leading-tone downward, and to commit other apparent irregularities.

While of great importance, the Tendencies are not always paramount. They are always to be held in mind and observed when we have a choice. But when by observing them we run into awkward progressions or Consecutives, or even if the work cannot be made as smooth as otherwise, they should not be followed. Therefore, do not hesitate to violate a tendency or double the Third of a chord when you think any improvement can be gained which will outweigh the disadvantage of violating the tendencies.

Until recent years, while the tendencies were recognized, they were not systematically explained as a principle. Dr. Jadassohn used to say, "I cannot teach you why this note goes up in this place and down in another place, but if you live long enough and work diligently every day, you will sometime come to *feel* how the notes should progress." He *felt* the Tendencies, but he did not *systematize* them.

1.



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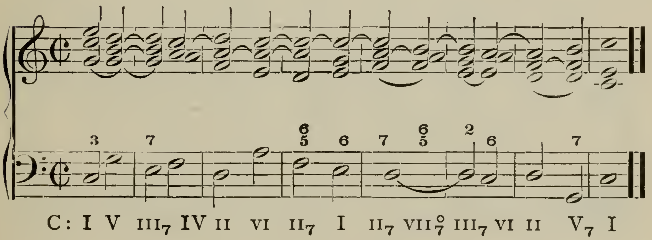

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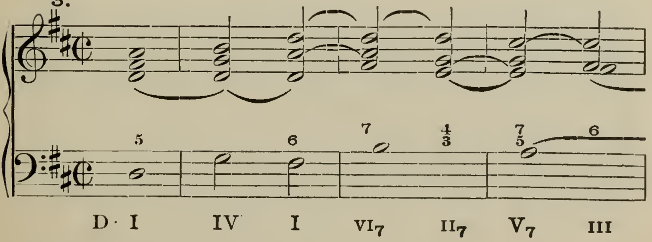
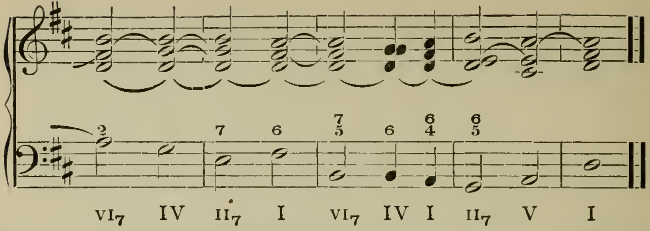
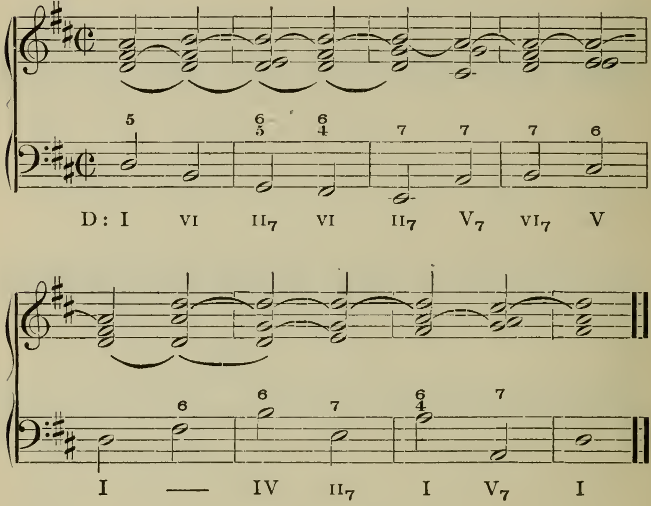
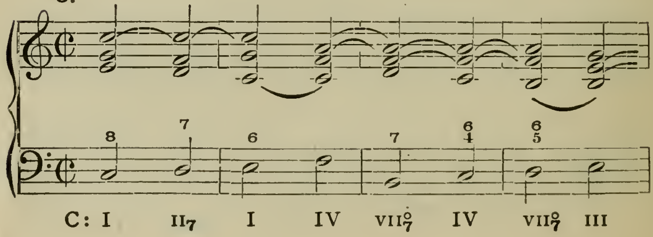


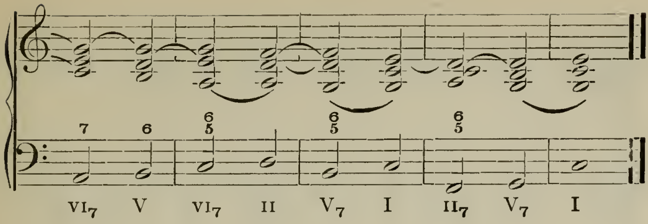

2
7
6
7 5
6
6 4
6 5
VI$_7$ IV II$_7$ I VI$_7$ IV I II$_7$ V I

4.


6 5
6 4
D: I VI II$_7$ VI II$_7$ V$_7$ VI$_7$ V
6 4
I — IV II$_7$ I V$_7$ I

5.


8
7
6
7
6 4
6 5
C: I II$_7$ I IV VII$^{\circ}_7$ IV VII$^{\circ}_7$ III



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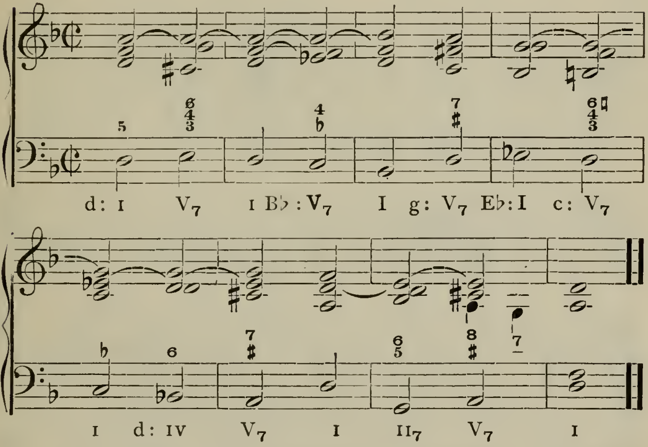
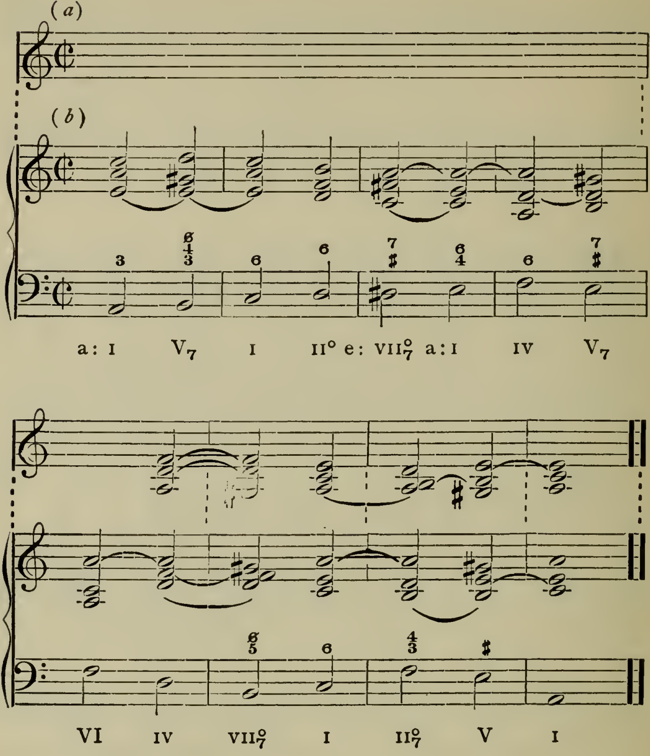


After studying Chapter XII, the student will recognize many of the apparently foreign chords as Attendant chords, which therefore do not make the changes of keys as definite as here indicated by the Roman numerals.

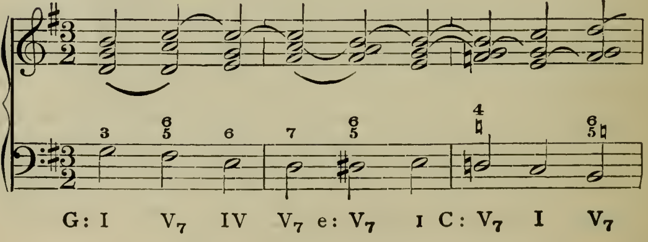
Others might be considered to be "Passing-chords" or Altered chords rather than foreign fundamental chords. In any case, the frequent changes of key (as suggested by some of the Roman numerals) are not altogether to be commended as models for original work by young students.

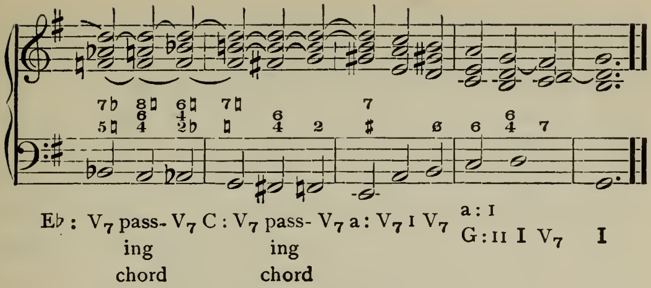
In cases where the changing keys are not clear, the root of each foreign chord should be noted. After studying the Attendant, Passing and Altered chords, the student may return and mark these exercises again.

7.


(a)
(b)
3 6/4/3 6 6 7/♯ 6/4 6 7/♯
a: I V$_7$ I II° e: VII$^{\circ}_{7}$ a: I IV V$_7$
6/5 6 4/3 ♯
VI IV VII$^{\circ}_{7}$ I II$^{\circ}_{7}$ V I

8.


3 6/5 6 7 6/5 4/♮ 6/5♮
G: I V$_7$ IV V$_7$ e: V$_7$ I C: V$_7$ I V$_7$



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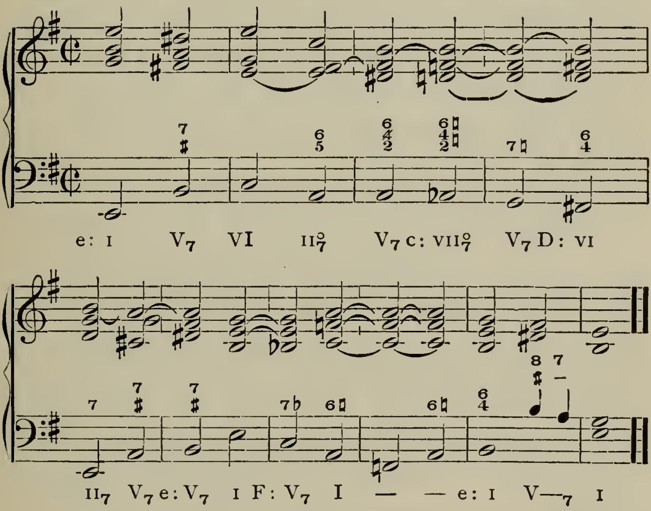
e: I V₇ VI II°₇ V₇ c: VII°₇ V₇ D: VI
II₇ V₇ e: V₇ I F: V₇ I — — e: I V—₇ I

[**Sections 188 and 197.**]

The resolution of the secondary seventh-chords, while often following that of the Dominant 7th-chord, is in no way obliged to do so, since the Tendencies do not incline in the same way in all the chords. In fact, the resolution of these chords is often more like the progression of the common chords, and might well be called "progression" instead of resolution. This brings us to the consideration of the point that in music there are two ways of moving from chord to chord; (1) By progression; that is, moving from chord to chord as in connecting common chords, either with or without the common note; and (2) by resolution, in which the Tendency-notes point the way. In the first case, the progression of the chord is more or less free, as there is usually a choice of possible chords; while in the latter case, the progression is not free, but is practically forced to one particular chord by the operation of the Tendencies. Now, in the Secondary seventh-chords there are Tendencies, of course, but, as in very few cases do the Tendencies of any two notes agree, there is no real and positive force operating in any one direction. The fact that there is a dissonance forces us to the conclusion that *some* chord must follow, but *which* chord is not so clearly shown, for the Tendencies do not unite upon any one. Being therefore more free, the secondary seventh-chords may often be treated more like common chords or triads, and be allowed to progress to any chord of the key, where (1) forbidden progressions like consecutive 5ths, etc., are not formed; and (2) where the effect is good. If it sounds well, it will probably not be wrong, though of course what sounds well to the beginner might not always be the choice of the experienced musician.

[Section 201.]

The student should try to realize how the various terms, such as Major, Minor, Augmented, Diminished, Principal, Signature, Tendency, etc., have a systematic application, and how the principles involved follow like a thread throughout the whole subject. He should think out carefully the inter-relationship of the principles and their application in the work so far as studied. It is this universal application of foundation principles which makes this study so simple, so scientific, and so satisfying. The deeper student will also try to realize the symmetry and completeness of the laws of Music: — that they are the laws of nature expressed in this form; — that similar laws are expressed in Architecture, in Oratory, in Painting, and all other forms of Art.

TOPICS FOR DISCUSSION.

Several interesting topics may be found in the Analytical and Comparative Review, and in the Synopsis on pp. 112-113.

QUESTIONS ON SECONDARY 7TH-CHORDS.

(1) How many chords of the seventh may be found in a key?

(2) How many Dominant Seventh-chords in a key?

(3) Which is the Principal chord of the Seventh?

(4) What are the Secondary chords?

(5) What is the difference between the Dominant and the Secondary 7th-chords?

(6) Describe the intervals in the chord of the 7th on the supertonic in major. (There are six intervals in the chord.)

(7) Describe the intervals in the chord of the 7th on the supertonic in minor.

(8) Can you hear the difference between the Dominant 7th and a Secondary 7th-chord?

(9) Why are the Secondary 7th-chords less positive and forceful than the Dominant 7th?

(10) Are the secondary 7th-chords all alike? If not, how do they differ?

(11) Are all the secondary 7th-chords in major agreeable to the ear? (Continued on p. 113.)

SYNOPSIS OF THE CHORD OF THE SEVENTH.

- Chord of the Seventh.
  - Quality
    - Represents the active or unrestful side of music.
    - Always dissonant. Never final.
  - General Construction
    - Another third added to triad. Four different letters or tones.
    - Positions and Inversions.
  - Seven Chords in the Key
    - One on each degree.
  - Principal or Dominant Seventh-Chord
    - Formation
      - On 5th degree.
      - Like Nature's chord.
      - Contains dissonant intervals:
        - Augmented 4th or Diminished 5th; and Minor 7th or Major 2d.
    - Resolutions
      - Process
        - By resolving its dissonant intervals, according to their tendencies.
      - Cadencing
        - Tendencies
          - Melodic: Of individual tones; 4th of scale downward, 7th upward.
          - Harmonic: Of dissonant intervals; Augm. 4th to expand, Dim. 5th to contract.
        - Regular resolution is to Tonic Chord.
      - Non-cadencing
        - To other chords of the key.
        - To chords of other keys.
        - To other chords of the seventh.

- Secondary Seventh-Chords
  - On degrees other than 5th.
  - Formation
    - Various, according to scale.
    - Tendencies: Various and often conflicting.
    - Positions and Inversions.
  - Preparation of Dissonances.
  - Resolutions
    - Cadencing: To 4th higher, like Dom. 7th.
    - Non-cadencing:
      - To other degrees of the key, with or without a "common note" connection.
      - To triads of foreign keys.
      - To other 7th-chords.
      - As simple connections or progressions.
  - On 7th degree in Major
    - Considered a form of Dominant harmony. See Chapter VIII.
  - On 7th degree in Minor
    - Known as Diminished 7th-chord. A form of Dominant harmony, and a very important chord.

QUESTIONS ON SECONDARY 7TH-CHORDS. (Cont.)

(12) Which are the most agreeable, and why?

(13) Which are the least agreeable, and why?

(14) Are all the secondary 7th-chords in minor agreeable to the ear?

(15) Which are most agreeable, and why?

(16) Which are least agreeable, and why?

(17) Are any Secondary 7th-chords supposed to be related to the Dominant 7th-chord? If so, describe the relationship.

(18) What is the most usual resolution of the secondary 7th-chords?

(19) Are any other resolutions possible?

(20) If so, describe some of them.

(21) What do you understand by "Preparation of Dissonances"?

(22) Can a dissonance enter in any manner other than by "preparation"?

(23) Should dissonant tones be doubled, and why?

(24) Can a chord of the 7th resolve to another 7th-chord, or must it always resolve to a consonant chord? Give your reasons.

(25) How does the chord of the 7th on the seventh degree usually resolve, and why?

(26) Can it have any other resolution?

(27) May secondary 7th-chords progress to other secondary 7th-chords?

QUESTIONS ON CADENCES AND THE CLOSING FORMULA.

(1) What is a Cadence?

(2) What three elements of music enter into the consideration of the Cadence?

(3) What is a Perfect Cadence? Give an example.

(4) What is an Imperfect Cadence? Give three examples.

(5) What is a Plagal Cadence? Give three examples.

(6) What is a Half-Close? Give an example.

(7) What is a Deceptive Cadence? Give an example.

(8) What is a Modulatory False Cadence? Give three examples.

(9) What is a Closing Formula?

(10) Give two or three of the more common ones.

(11) How should the final (Tonic) chord enter to give a sense of complete close?

(12) How should the Dominant 7th-Chord (just before the end) enter to make a complete close?

(13) What relation do you see between the Closing Formula and the simpler compositions, such as Folk-songs, simple Hymns, National Songs, etc.?

(14) Can you hear the approach of a close?

(15) What inversion of what chord is often used to introduce the close?

(16) In using the chords of the Dominant 7th and Tonic in succession in the course of a phrase, how may the effect of a close be avoided?

(17) What restrictions are to be observed in the use of the Six-Four chord?

CHAPTER VIII.

THE CHORD OF THE DOMINANT SEVENTH AND NINTH.

[Section 204.]

In this system the following chords are shown to be nothing more than slightly varying forms of *Dominant* harmony: (1) The Dominant 7th-chord; (2) The Chord of the Dominant Major 9th; (3) The Chord of the Dominant Minor 9th; (4) The Chord of the Diminished 7th; (5) The Chord of the Augmented Six-Five-Three; (6) The Chord of the Augmented Six-Four-Three; (7) The Chord of the Augmented Six-Three. All these chords will be shown to have the same root, the *same Dissonant Intervals* (varying, of course, slightly in number with the increased number of notes), the *same tendencies* and the *same resolution*, thus proving their similarity. The simplicity of the subject is thus shown most strikingly. In the following lessons the student should not look for new things or new principles, but only for wider application of the principles developed in the study of the chord of the Dominant 7th.

ADDITIONAL EXERCISES.

[Section 208.]

Written Exercises: (*a*) Take the chord of the Dominant 7th and 9th in the key of C; write it in every possible position and inversion that is allowed. (NOTE. It is not allowed to have the Root and the Ninth nearer together than an octave.)

(*b*) Proceed similarly in two other sharp keys, and two flat keys.

KEYBOARD DRILL. Take in turn each inversion, and play all its possible different positions. Then take the next inversion, and combine with it all the positions, etc. Continue similarly through all the inversions.

[Section 209.]

WRITTEN EXERCISES. Taking the key of G major, write the chords of the 7th and 9th upon each degree of the scale. Mark those which you think sound least disagreeable (all are dissonant, of course); also write the best resolution you can form for each one, marking as such any you may think unsuitable for use.

KEYBOARD EXERCISES. (*a*) Taking different keys in turn, form chords of the 7th and 9th upon each degree of the scale, and resolve as above.

(*b*) Repeat the above, using different inversions and positions.

TOPICS FOR DISCUSSION.

Chord of Ninth only an enlarged 7th-chord, retaining the character of that chord.

Dominant chord alike in major and minor up to this point, the Ninth differing in the two modes.

QUESTIONS ON CHORDS OF 9TH AND 7TH.

(1) How is this chord constructed?

(2) Describe the tendencies of the individual tones in the Dominant Major 9th- and 7th-chord.

(3) Describe the "preparation" required for Secondary 9th- and 7th-chords.

(4) In inverting this chord, against what should we guard, and why?

SYNOPSIS OF CHORD OF THE NINTH.

- Chords of the Seventh and Ninth
  - Principal
    - Dominant Major 9th
      - Formation
        - By adding 3d to Dom. 7th in Major key.
        - Gives a Major 9th.
      - Preparation
        - Of 9th.
      - Resolution
        - Cadencing, like all Dominant harmony.
        - Non-cadencing.
    - Dominant Minor 9th
      - Formation
        - By adding 3d to Dom. 7th in Minor key.
        - Gives a Minor 9th.
      - Preparation
        - Of 9th.
      - Resolution
        - Cadencing, like all Dominant harmony.
        - Non-cadencing.
      - Source of
        - The Diminished 7th-Chord.
        - The Augmented $\genfrac{}{}{0pt}{}{\not{6}}{5}$ Chord.
  - Secondary
    - Formation
      - Upon scale-degrees other than the fifth.
    - Preparation
      - Of both 7th and 9th.
    - Resolution
      - Cadencing or non-cadencing.
      - Sometimes treated as Suspensions.

CHAPTER IX.

CHORD OF THE DIMINISHED SEVENTH.

THE PRINCIPLE OF THE "SHARPEST NOTE."

[**Section 215.**]

The whole subject of the notation, changes of key, and resolution of the Diminished 7th-chords, is closely interwoven with the principle of the "Sharpest Note," described in "Harmony Simplified," §29.

It should be understood that this is an arbitrary comparison of the notes of the chord of the scale for the purpose of determining the key, as follows: — As the leading-tone is present in all forms of Dominant harmony, which latter is required for a cadence, it will be seen that if we can unfailingly discover the leading-tone, we can also discover the prevailing key, since no change of key can be established without the cadence. It is this fact which makes the use of the "Sharpest Note" so valuable in the study of Analysis. Before proceeding with the study of the Diminished 7th-chord and the various forms of the Augmented 6th-chord, the student should be well drilled in the principle of the "Sharpest Note."

ADDITIONAL EXERCISES.

(*a*) Perform the exercises in Harmony Simp., §29.

(*b*) Compare the relative sharpness of the seven degrees of the scale of C, and so determine the Leading-tone.

(*c*) Proceed similarly with three sharp and three flat keys in major.

(*d*) Proceed similarly with three sharp and three flat keys in minor.

(*e*) Compare similarly the four tones of the chord of the Dominant 7th upon D, determining thereby the Leading-tone, the key, and the root of the chord (which latter will be the dominant).

(*f*) Proceed similarly with the Dominant 7th-chords on G, E♭, B, F♯, A, D♭ and C♯.

(*g*) Compare similarly the notes of three Dominant Major 9th-chords.

(*h*) Compare similarly the notes of three Dominant Minor 9th-chords.

(*i*) Compare similarly the notes of three Diminished 7th-chords.

[**Section 219.**]

Additional Exercises. Take the chord C–D♯–F♯–A and re-write it so that it shall belong to and resolve in the four different keys to which it may directly belong.

Proceed similarly with the chord C♯–E–G–B♭.

Proceed similarly with the chord D–F–A♭–B.

KEYBOARD DRILL. Take the chords as above, "think" their different possible roots, and resolve to the four possible keys.

The chord of the Diminished 7th, instead of resolving to four different keys, may be made to resolve (or continue on) into each of the twelve major and twelve minor keys by considering the chords of resolution in each case as potential Dominants or Subdominants. Lack of space forbids enlarging upon this important line of thought and drill.

EXERCISE. By re-writing where necessary and proceeding as above, resolve B–D–F–A♭ to each of the twelve major and twelve minor keys.

Similarly, resolve C–E♭–G♭–A, and C♯–E–G–B♭, to each of the twelve major and minor keys.

[Section 220.]

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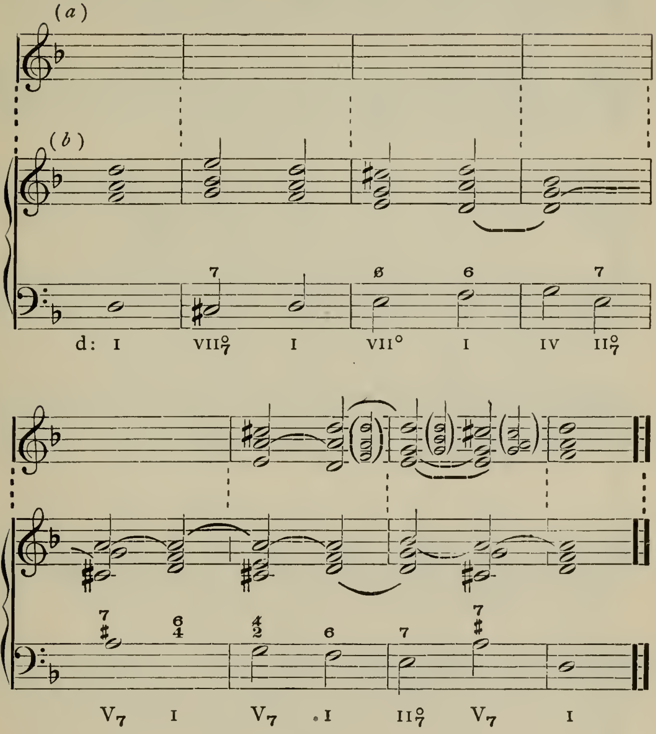

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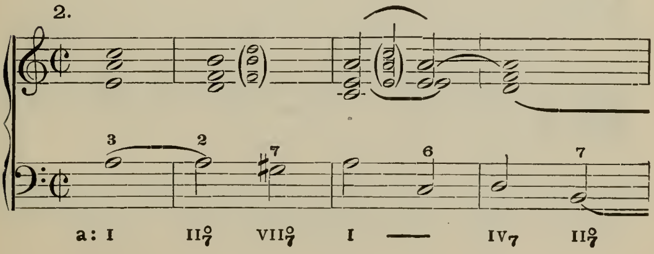
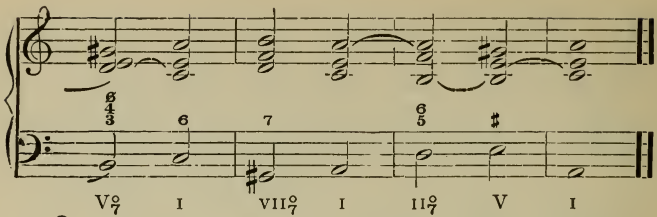
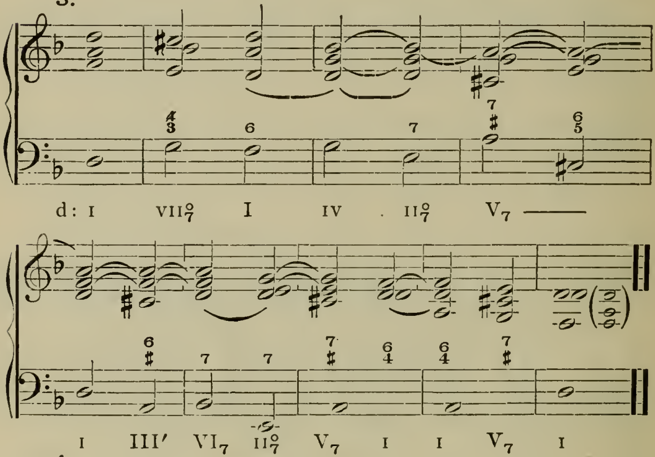
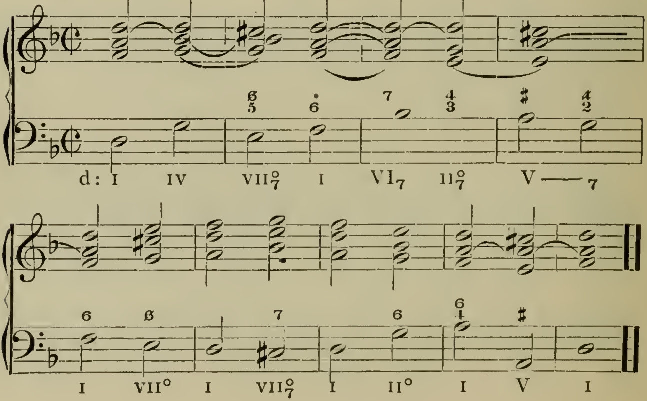



6/4/3
6
7
6/5
♯
V°7
I
VII°7
I
II°7
V
I

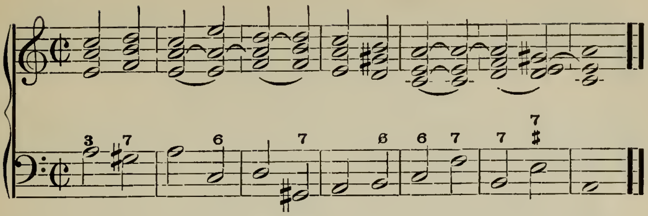
3.


4/3
6
7
7/♯
6/5
d: I
VII°7
I
IV
II°7
V7 ———
6/♯
7
7
7/♯
6/4
6/4
7/♯
I
III′
VI7
II°7
V7
I
I
V7
I

4.

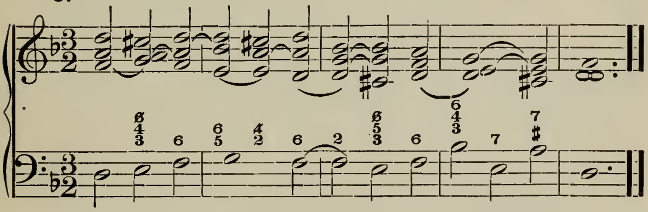

6/5
6
7
4/3
♯
4/2
d: I
IV
VII°7
I
VI7
II°7
V —— 7
6
6
7
6
6
♯
I
VII°
I
VII°7
I
II°
I
V
I

5.



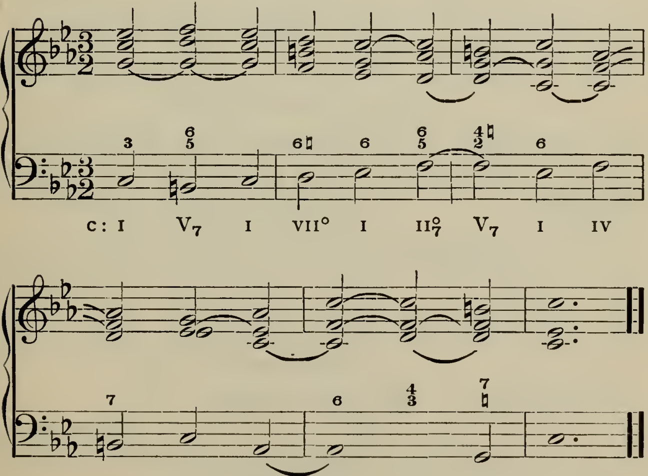
a: I VII°₇ I —— IV VII°₇ I VII° I VI₇ II°₇ V₇ I

6.



d: I V₇ I II°₇ V₇ I IV₇ VII°₇ I II₇ II°₇ V₇ I

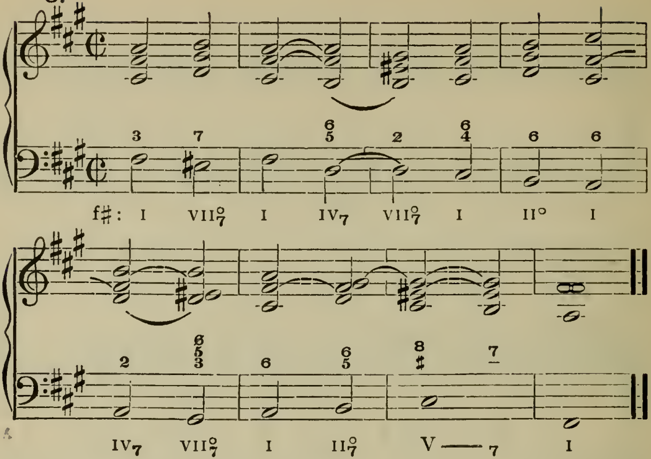
7.



c: I V₇ I VII° I II°₇ V₇ I IV

VII°₇ I VI IV II°₇ V₇ I

8.



SYNOPSIS OF DIMINISHED 7TH-CHORDS.

Diminished 7th-Chord	Source	A form of Dominant harmony. From Dominant Minor 9th-chord by omitting root. Used in major keys by "license."
	Peculiarity	Consists of series of minor 3ds — no contrast in intervals.
	Resolution	Cadencing — same as any Dominant harmony. Resolves directly to 4 different keys by change of notation, and indirectly to all twelve keys.
	Interchangeability	Identical in 4 keys by change of notation. Useful in modulation.
	Notation	Determined by the key. Change of notation changes root, with resulting change of key.
	Root	Real root omitted. Root determined by "sharpest note." Change of root causes change of notation and change of key.

[Section 221.]
See page 186.

TOPICS FOR DISCUSSION.

Proven to be truly Dominant harmony by its tendencies.

An evolution from the chord of the Dominant 7th.

Lack of definiteness, owing to similarity of intervals (three minor 3ds).

The principle of the "sharpest note."

The relation of the root to the resolution.

QUESTIONS ON DIMINISHED 7TH-CHORDS.

(1) From what chord is the Chord of the Diminished 7th derived?

(2) As what kind of harmony is the Diminished 7th-chord known?

(3) How is it formed?

(4) What is the root of the Diminished 7th-chord?

(5) Upon which degree of the scale does this chord *apparently* stand?

(6) Is the root present in the chord?

(7) Describe the tendencies in the Diminished 7th-chord.

(8) How is it resolved, and why?

(9) What relationship do you see, if any, between the chord of the Diminished 7th and the chord of the Dominant 7th?

(10) What peculiarity in its intervals do you observe in the chord of the Diminished 7th?

(11) Into how many keys may this chord directly resolve, and how?

(12) How can you, unfailingly, distinguish the key in which it is written?

(13) How does change of notation affect the chord of the Diminished 7th?

(14) Physically, or apparently, when seeing the chords upon the piano keyboard, how many different chords of the Diminished 7th are found?

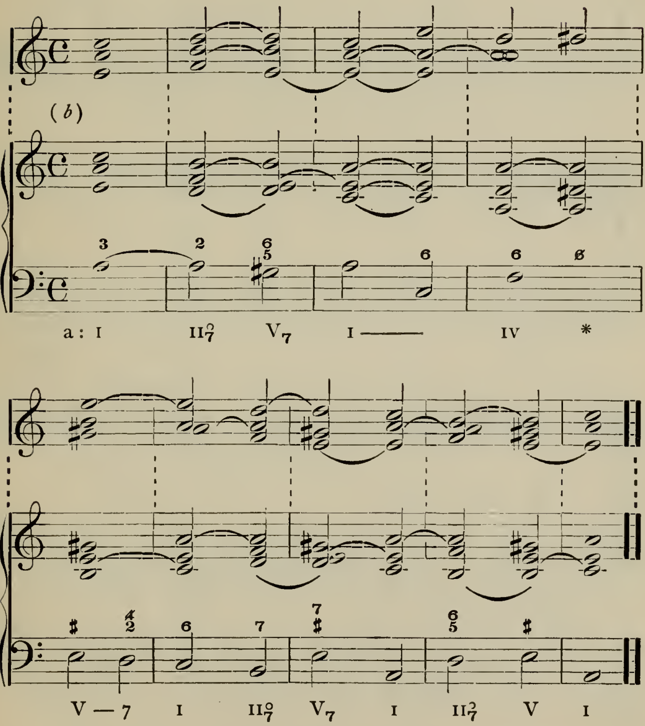
(15) Into how many keys may any given chord of the Diminished 7th indirectly resolve, and how?

CHAPTER X.

CHORDS OF THE AUGMENTED SIXTH.

[Section 232.]

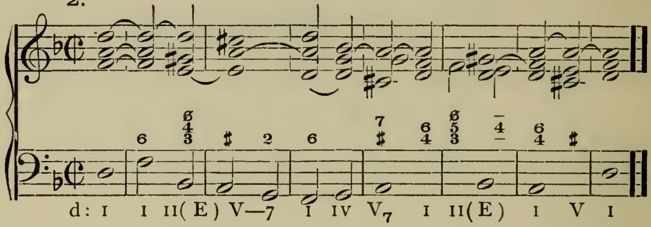
1. (*a*)



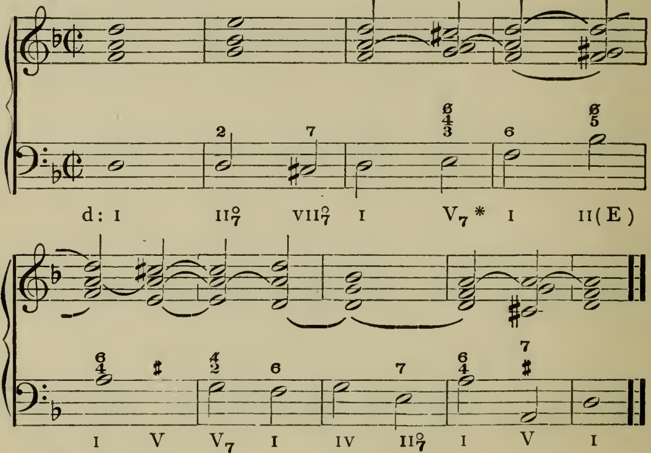
* Under older methods the classification of Augmented 6th-chords was quite difficult. But, with the exposition given in "Harmony Simplified," the root is clearly B, since the "sharpest note" is D♯ and the chord resolves to the

chord of E. In the following examples the roots of the Augmented 6th-chords will be indicated by their letter-name in addition to, or in place of, the Roman Numerals.

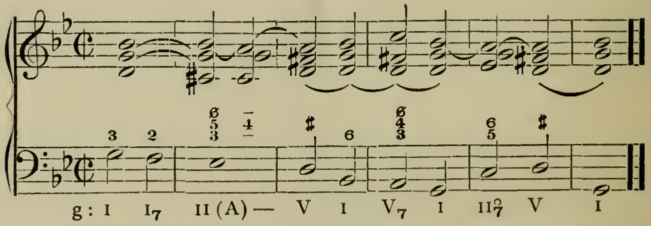
2.


6 ø4 3 ♯ 2 6 7 ♯ 6 4 ø5 3 4 6 4 ♯
d: I I II(E) V—7 I IV V7 I II(E) I V I

3.



4.



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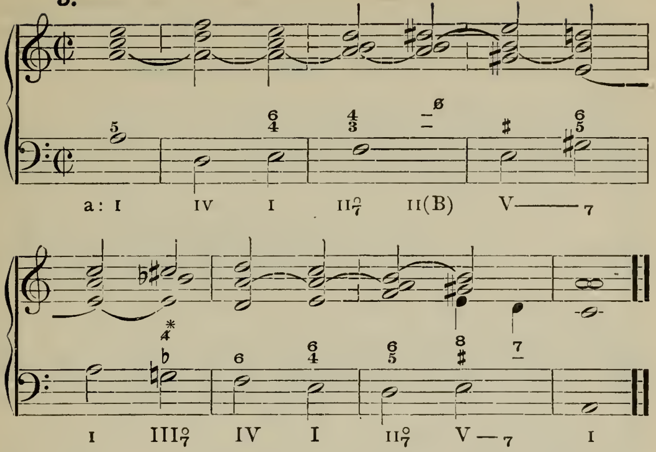
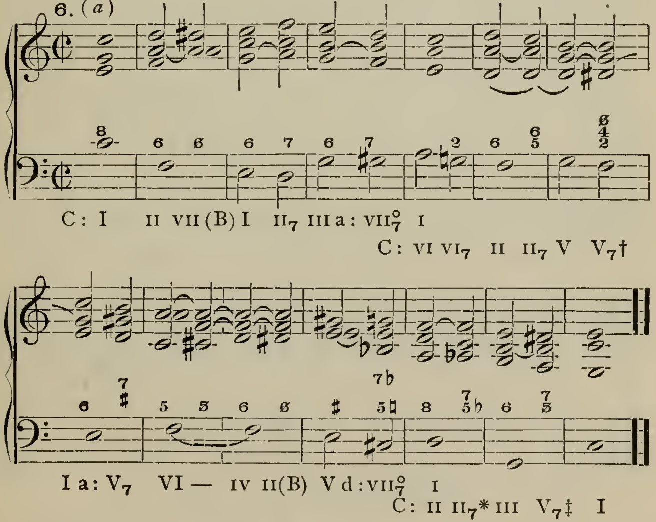
* This is not an Augm. 6th-chord, but a Dom. 7th in minor.

5.



6. (*a*)


8
6 ø 6 7 6 7 2 6 6 5 ø 4 2
C: I II VII(B) I II7 III a: VII°7 I
C: VI VI7 II II7 V V7†
6 7 ♯ 5 5 6 ø ♯ 7♭ 5♮ 8 7 5♭ 6 7 5
I a: V7 VI — IV II(B) V d: VII°7 I
C: II II7* III V7‡ I

---

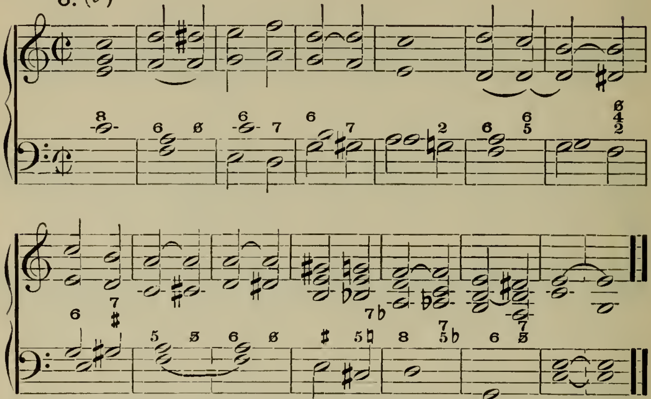
* With chromatically altered note.

† Not an Augm. 6th-chord, but a Dom. 7th-chord with a raised 5th as a passing-note.

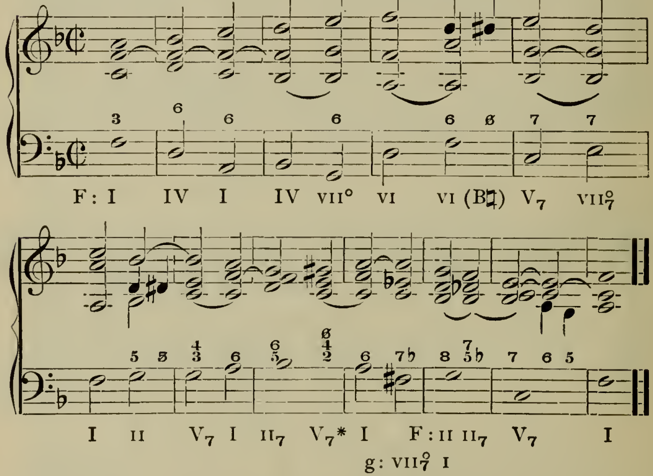
‡ Really an Attendant Chord. See Chap. XII.

By placing part of this exercise in open position the effect is improved, as below. This was the custom of Dr. Jadassohn himself, who wrote the exercise.

6. (*b*)



7.


F: I IV I IV vii° vi vi (B♮) V7 vii°7
I ii V7 I ii7 V7* I F: ii ii7 V7 I
g: vii°7 I

---

* Not a true Augm. 6th-chord, but the Dom. 7th-chord with accidentally raised 5th

[Section 233.]

See page 186.

[Section 235.]

To be more exact, the synopsis should show the chord of the Augmented six-four-three as derived directly from the Dominant 7th-chord, and the Augmented six-three as derived from the Leading-tone triad. But, as stated, they are all derived from dominant harmony.

[Sections 235 and 236.]

As we go further on in the work it becomes more and more desirable to trace the connection between the later sections and the earliest principles. When we more fully realize the wonderful unity of it all, it becomes more and more simple. Try and think, first, that there is but *one scale;* then, only *one key* (both scale and key meaning "a group of relationships"); then, that there is structurally but "*one chord,*" but *one set of tendencies* (melodic, harmonic and of continuity), which are almost universally operative; but *one law* of resolution; that the various fundamental dissonant chords — Dominant 7th, Diminished 7th, Major and Minor 9th, and the Augmented 6th — are really only differing forms of the *same harmony.* Then we realize the simple influences and relationships of chords developed by the part-writing. And, finally, realize that the laws of all other arts are the same as in music. These laws may be expressed under the heads of Unity; Variety; Beauty; Climax, Foreground and Background; Balance and Design, or Form. In the above we have rather a complete expression of the laws of music.

TOPICS FOR DISCUSSION.

General review of Chord-structure, Chord- and Key-relations and the "unfolding" of Dominant harmony, emphasizing the Unity of Design, and the constancy of the Laws as shown in the Tendencies and Resolution of all forms of Dominant to Tonic.

SYNOPSIS OF AUGMENTED SIXTH-CHORDS.

- Augmented 6th-Chords
  - Source
    - Dominant harmony, derived from V_7, V^9_7, or vii°, by placing in inverted form and lowering 5th from true root. Is therefore, strictly, an Altered Chord.
  - Resolution
    - Usually cadencing, like all dominant harmony. Sometimes "delayed."
  - Most commonly occurring chords
    - That resolving to V — root on Supertonic.
    - That resolving to I — root on Dominant.
  - Three forms.
    - Augm. $\begin{smallmatrix}\not{6}\\3\end{smallmatrix}$
      - Derived from vii°.
      - Cadencing resolution.
    - Augm. $\begin{smallmatrix}\not{6}\\4\\3\end{smallmatrix}$
      - Derived from Dominant 7th.
      - Cadencing resolution.
    - Augm. $\begin{smallmatrix}\not{6}\\5\\3\end{smallmatrix}$
      - Derived from Dominant minor 9th and 7th-chord.
      - Cadencing resolution. (True resolution sometimes delayed on account of consecutive 5ths.)
  - Attendant
    - Chords upon other degrees than V and ii may be used as "Attendant" chords. These are less common than the ones mentioned above.

QUESTIONS ON AUGMENTED 6TH–CHORDS.

(1) Do all the notes of this chord belong strictly to the key? If not, which one is foreign to the key, and why?

(2) What is the characteristic interval in this chord, and how is it produced?

(3) In how many forms does this chord appear? Name and describe them.

(4) Are any unusual tendencies developed in this chord? If so, what are they?

(5) How is the Augmented 6–5–3 chord constructed and resolved?

(6) How is the Augmented 6–4–3 chord constructed and resolved?

(7) How is the Augmented 6–3 chord constructed and resolved?

(8) How many of these chords are in common use in the key? Which are they?

(9) Can you prove the similarity of the three forms of this chord with each other and with Dominant harmony?

(10) Are the consecutive 5ths which may occur in resolving the 6–5–3 form considered as offensive as in other cases? Why?

(11) Why do the Chords of the Augmented Sixth frequently first progress to a Six-Four chord and then (usually) continue to their normal resolution?

(12) Do the Chords of the Augmented Sixth have Deceptive or Modulatory resolutions?

(13) Are the Augmented 6th-chords really "fundamental" chords?

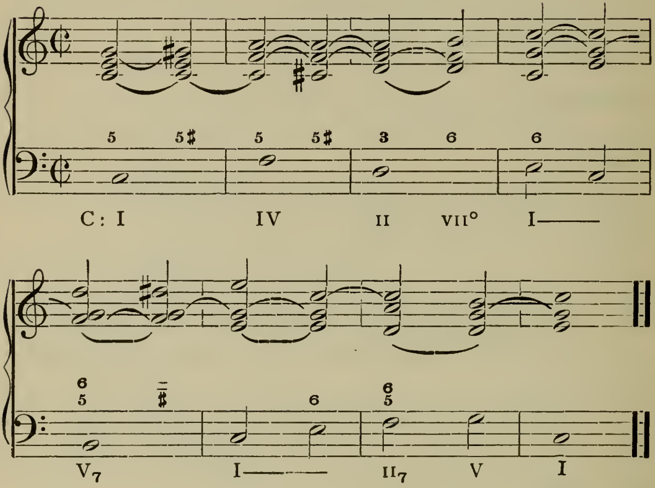
Further Notes on these chords may be found in the author's "How to Modulate."

CHAPTER XI.

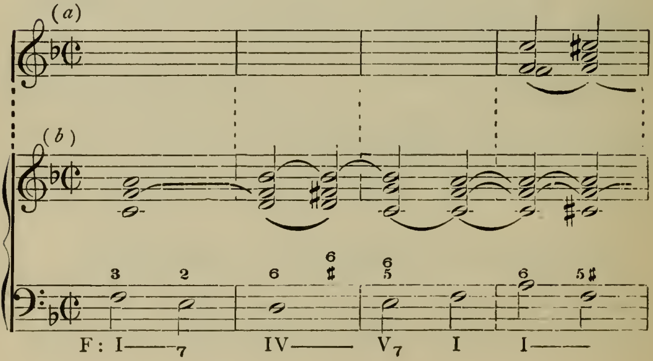
ALTERED CHORDS.

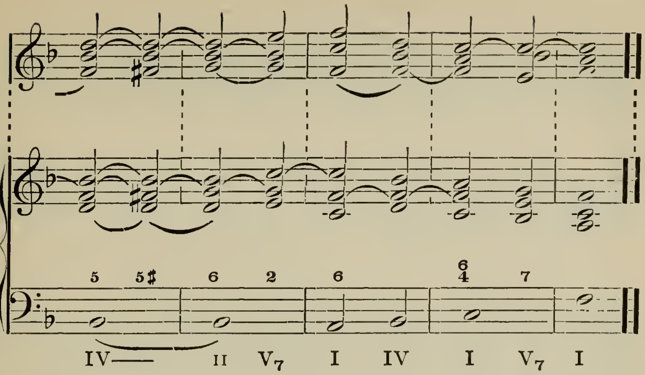
[Section 258.]

1.

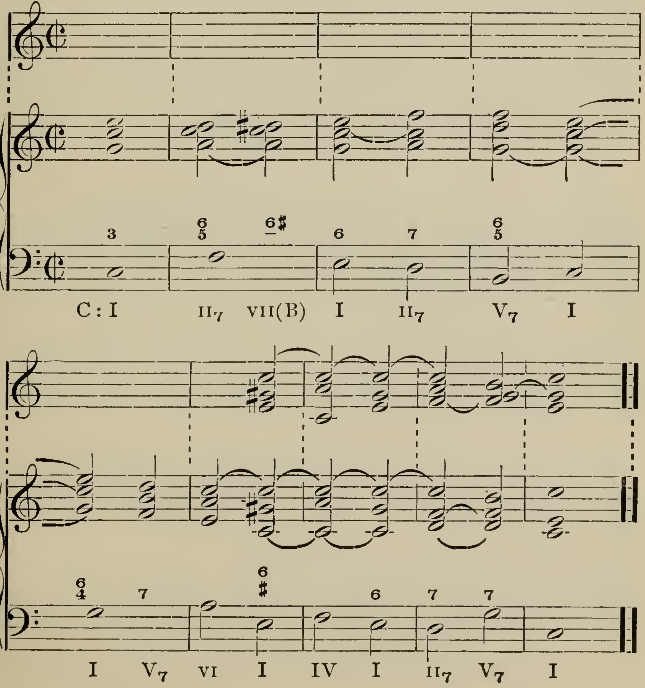


2.

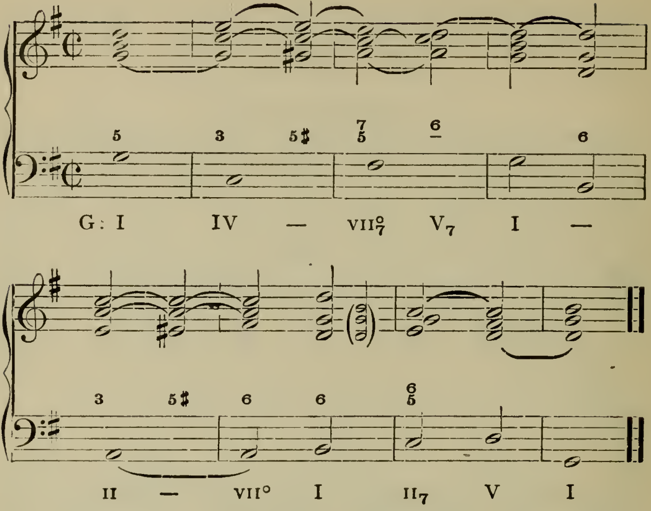



5
5♯
6
2
6
6 4
7
IV——
II
V7
I
IV
I
V7
I

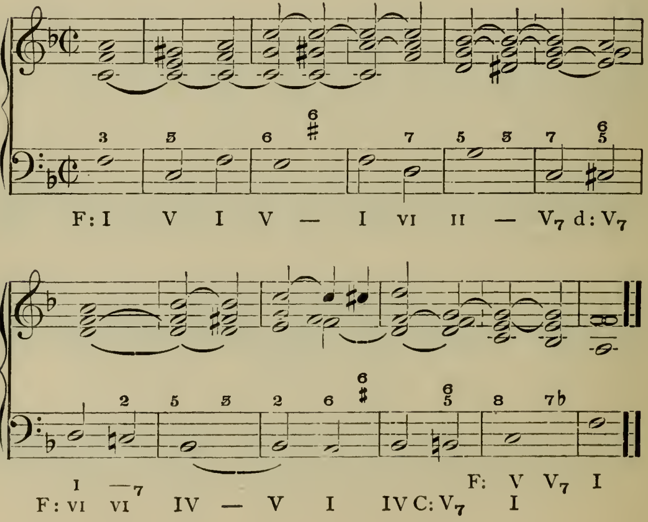
3.


3
6 5
6♯
6
7
6 5
C : I
II7
VII(B)
I
II7
V7
I
6 4
7
6 ♯
6
7
7
I
V7
VI
I
IV
I
II7
V7
I

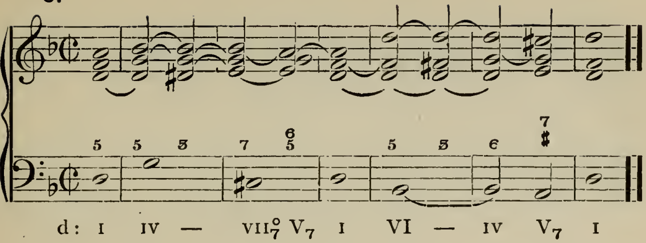
4


5
3
5♯
7
5
6
6
G: I
IV
—
VII°7
V7
I
—
3
5♯
6
6
6
5
II
—
VII°
I
II7
V
I

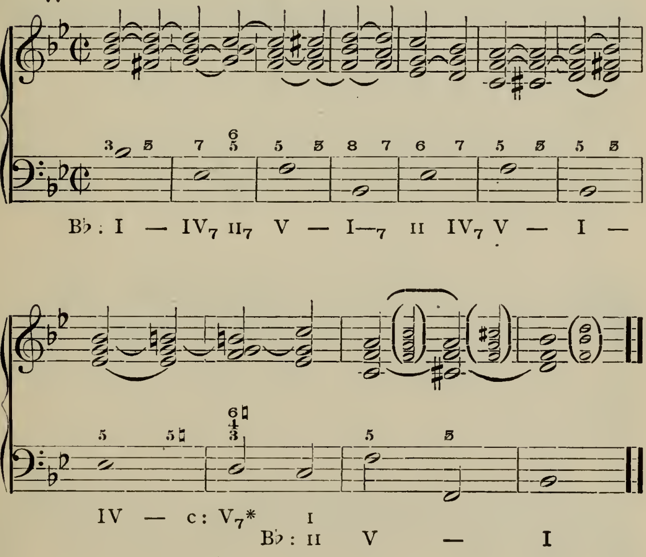
5.


3
5
6
6
♯
7
5
5
7
6
5
F: I
V
I
V
—
I
VI
II
—
V7 d: V7
2
5
5
2
6
6
♯
6
5
8
7♭
I
F: VI
VI7
IV
—
V
I
IV C: V7
I
F: V
V7
I

6.

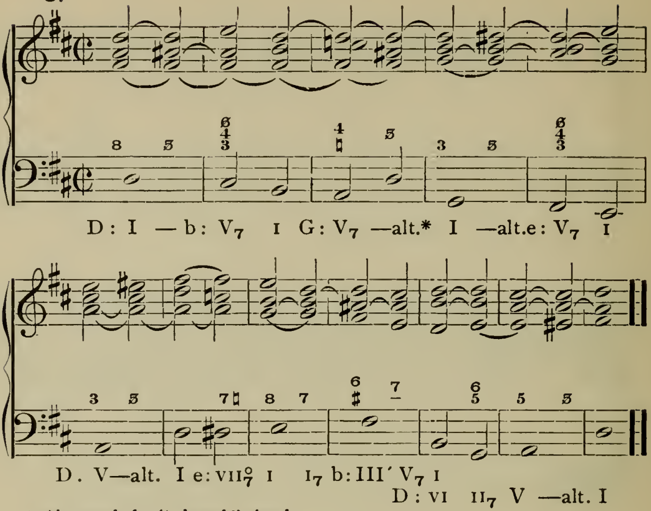


7.



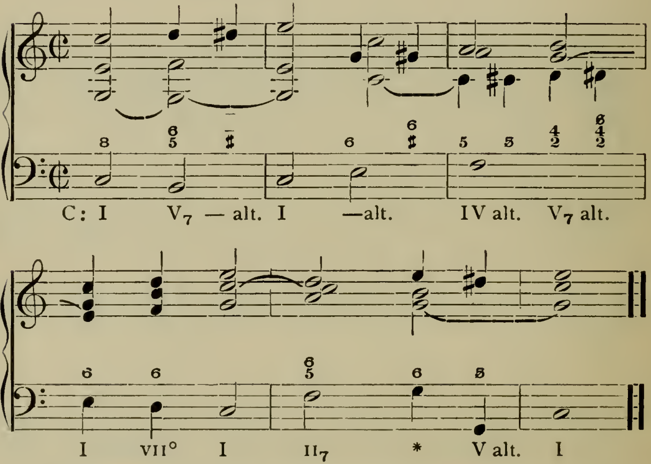
After studying the attendant chords, this marking will be recognized as rather crude and unwieldy, for this and many similar chords are merely attendants of the chords that follow, there being no real modulation.

8.


8 5 6/4/3 4/♮ 5 3 5 6/4/3
D: I — b: V₇ I G: V₇ —alt.* I —alt. e: V₇ I
3 5 7♮ 8 7 6/♯ 7/— 6/5 5 5
D. V—alt. I e: VII°₇ I I₇ b: III′ V₇ I
D: VI II₇ V —alt. I

* Alt. stands for "altered" chord.

9.



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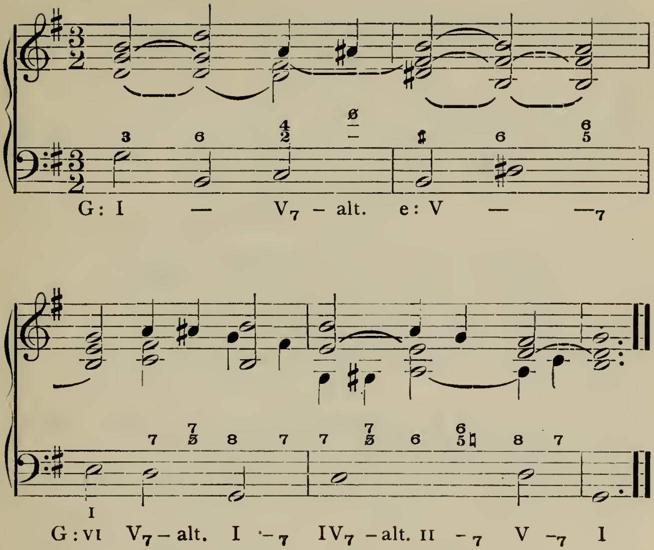
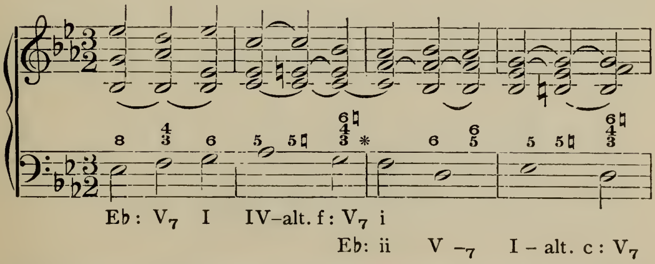
* Best considered as V with the note E as a "changing" note. See "Harmony Simplified," §320.

10.


G: I — V₇ – alt. e: V — —₇
G: VI V₇ – alt. I –₇ IV₇ – alt. II –₇ V –₇ I

Many of the altered tones give the effect of passing-notes, rather than of altered chords, as they are essentially melodic, rather than harmonic, in character.

11.



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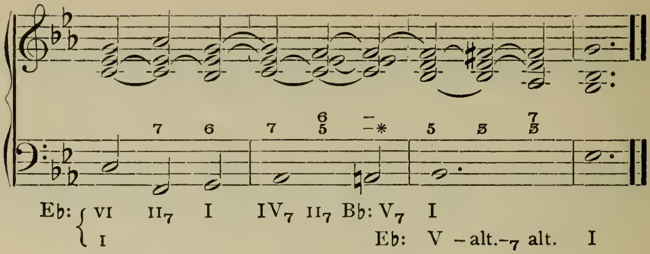
* For a more scientific and modern explanation of these chords see Chapter XII.



QUESTIONS ON ALTERED CHORDS.

(1) What is an Altered Chord?

(2) When a chord is altered, what classifications may result?

(3) Which of the Altered Chords are in general use?

(4) What is a Fundamental Chord?

(5) In how many forms may Fundamental Chords appear?

(6) How does the change of Root change the Resolution of a Fundamental Chord?

(7) Can you give an illustration of a change of Root, by altering one tone of the chord or by a change of notation? Please do so.

(8) Are chords transferred, by alteration, to another key?

(9) What is the "sharpest note"?

(10) What is the principle involved in the "sharpest note"?

(11) What is its use?

(12) Does the "sharpest note" principle apply to all chords with chromatically altered tones?

(13) If not, to which class does it apply?

---

* For a more scientific and modern explanation of these chords see Chapter XII.

(14) How can they be distinguished?

(15) What is the usual resolution of any Fundamental dependent chord?

(16) How can the key of any Fundamental dissonant chord be determined?

(17) What is the Neapolitan Sixth-chord?

(18) What is the special explanation of the Neapolitan Sixth given in "Harmony Simplified"?

(19) How does this explanation agree with the author's theory of the underlying similarity of the chords of the Dominant Seventh, the Dominant Seventh and Ninth, the Diminished Seventh, the three forms of the Augmented Sixth, and the Attendant Chords?

(20) Can you, by listening, follow the melodic progressions of Altered Chords, and feel the changing tonalities caused by Foreign Fundamental chords, distinguishing the difference between the two classes of chords?

CHAPTER XII.

FOREIGN CHORDS. — ATTENDANT CHORDS.

SYNOPSIS OF ALTERED CHORDS,

AS COMPARED WITH FOREIGN FUNDAMENTAL CHORDS.

- Altered Chords and Foreign Fundamental Chords.
  - How formed
    - By chromatic alteration of one or more chord-tones.
  - Results of Chromatic Alteration of chord-tones
    - Harmonic Changes; leading to
      - Foreign Fundamental Chords, with change of Root, of Tendencies and of Resolution.
      - Are like Dominant Harmony, resolving accordingly.
    - Melodic Changes; leading to
      - Altered Chords
        - How analyzed
          - To find Root, place in Direct Form (in successive Thirds).
          - Compare with Fundamental chord on same root to determine whether foreign Fundamental or Altered chord.
          - Also observe resolution (or following chord).
        - How treated
          - Altered tones generally follow their tendencies.
          - Otherwise proceed as if unaltered.
      - Ambiguous Chords
        - To classify, observe resolution.

- Augmented Sixth-Chords
  - Some form of Dominant Harmony.
  - Characteristic features are ; (1) Always in second inversion ; (2) Fifth from true root chromatically lowered one half-step.
- Neapolitan Sixth
  - Usual explanation
    - Found on 2nd degree in Minor, with root lowered chromatically.
  - Author's explanation
    - Free form of Augm. Sixth-chord, being divided between two successive chords.

A BROADER VIEW OF ATTENDANT CHORDS.

PARENTHETICAL CHORDS AND KEYS.

The treatment of the Attendant Chords in "Harmony Simplified" shows an expansion of the principle of the relation of Dominant and Tonic, to include the chords upon other degrees of the scale. These Attendant chords have one or more tones foreign to the prevailing key, and are therefore, strictly speaking, Foreign Chords, whose presence without modulation is explained by their relation (as Dominant) to some chord in the key. (See Harmony Simplified, section 270, and Figure 79.)

In a still broader view, which was first developed by Carl Piutti in his "Regeln zur Musik-Theorie," not only is this foreign Dominant, or Attendant chord, permitted, but also other chords of the key which is suggested by this Attendant and its chord of resolution. This forms a series of chords, suggestive of a different key, which is interpolated. These interpolated chords do not belong to the prevailing key, but are related to some chord in the key, which chord, in case of a complete modulation, would become the Tonic of the new key. These are called "Parenthetical Chords," and the suggested key becomes the "Parenthetical Key." These terms are used for the reason that this series of chords foreign to the key causes no completed modulation, the prevailing key being only momentarily eclipsed. This is just as in language, when a passing remark, which holds attention for only an instant, is placed in parenthesis.

It should be understood then, that a single foreign chord, standing in the relation of Dominant to some chord of the prevailing key, is called an Attendant Chord (also called a Parenthetical Chord); while if there is a larger circle of chords which might belong to such a suggested key, but without a completed modulation, they are called Parenthetical chords. The term Attendant is limited to the one chord which is like the Dominant, while the term Parenthetical may refer to one or more chords which suggest a subordinate key.

But why employ the term "Attendant," when it is included in the larger term "Parenthetical"? When we reach the study of Modulation, in the next Chapter, it will be seen that the term Parenthetical is too general for use where we desire only one chord, that which stands in the relation of Dominant to some chord in the key.

This classification of the Parenthetical chords, as an expansion of the idea of Attendant chords, explains many of the more intricate passages which are otherwise far from clear. The reader is referred to the author's "How to Modulate" for further exposition of this important subject.

SYNOPSIS OF THE ATTENDANT CHORDS.

Attendant Chords.	Source.	In relation of Dominant and Tonic Chords.
	Form.	Like Dominant harmony. May be Diminished triad; chord of 7th; of the 9th and 7th; of the Dim. 7th; or of the Augm. 6th.
	Resolution.	Nearly always cadencing; but may be Deceptive, like any Dominant Harmony.
	Commonly occuring	Upon any degree of the scale except the 5th, which is not needed, being already dominant; and that resolving to the 7th degree.
	Use	In enlarging boundaries of the key. In Analysis and Modulation. In Improvisation and Composition.
	Larger meaning	May include other interpolated chords, or even a complete interpolated (or parenthetical) key.

QUESTIONS ON ATTENDANT CHORDS.

(1) Are Attendant Chords wholly within the key?

(2) Are Attendant chords like Dominant chords in form? If not, how do they differ from the Dominant chords?

(3) Why do composers use Attendant chords?

(4) How many Attendant Chords may be conveniently used in a key?

(5) Are Attendant chords consonant or dissonant? If dissonant, how do they resolve?

(6) What are the tendencies of an Attendant chord?

(7) In how many forms may Attendant chords appear?

(8) How do Attendant chords simplify the subject of Foreign chords?

(9) How may the "Attendant" principle be broadened in its scope?

(10) What is a Parenthetical Chord?

(11) What is a Parenthetical Key?

(12) What is the difference between an Attendant chord and a Parenthetical chord?

(13) Do Parenthetical chords indicate a modulation?

NOTE. Further discussion of Attendant Chords may be found in the Author's "How to Modulate."

CHAPTER XIII.

MODULATION.

[Section 276.]

For younger students it is well to first apply the methods of Modulation described in §300, " by means of a common triad," modulating particularly to the Dominant, Subdominant and Relative Minor.

SYNOPSIS OF MODULATION.

Modulation.	Classification	Natural; to related keys. Extraneous; to unrelated keys.
	How effected	By choosing some chord from each key and connecting them.
	Various Methods	By using a "common chord." By using a "common note." By using the Closing Formula. By using the "Attendant" Chords — the one method which applies in all cases. By using the False Cadence. By using the Enharmonic Change; etc., etc.
	To complete a Modulation	The Closing Formula is commonly used.
	Incomplete Modulations	Transient Modulations, Attendant, or Parenthetical Chords.

QUESTIONS ON MODULATION.

(1) What is Modulation?

(2) How is it effected?

(3) What is meant by the terms Old Key and New Key?

(4) Why is a connecting note between successive chords especially necessary in modulation ?

(5) How is the " new " tonality to be established ?

(6) What is the difference between a " transient " and a complete modulation ?

(7) In modulating to a new key, how many " doors " are there by which we may enter ?

(8) How many doors for leaving the old key ?

(9) What is the advantage of using [A] chords for modulation ?

(10) Why are inversions helpful in modulation ?

(11) Do you consider a change from C major to C minor a modulation ? If not, what is it ?

(12) Is it necessary always to use chords of the 7th in modulation ? If not, what other chords may be used ?

(13) What is Compound modulation ?

(14) Name several of the common means of modulating.

(15) Should a modulation be abrupt, or partially concealed ?

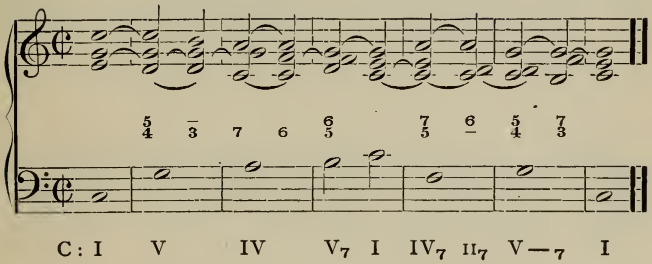
(16) How may the " old " tonality be best obliterated ?

CHAPTER XIV.

VARIETY OF STRUCTURE; SUSPENSIONS; ANTICIPATIONS, RETARDATIONS.

[Section 306.]

1.



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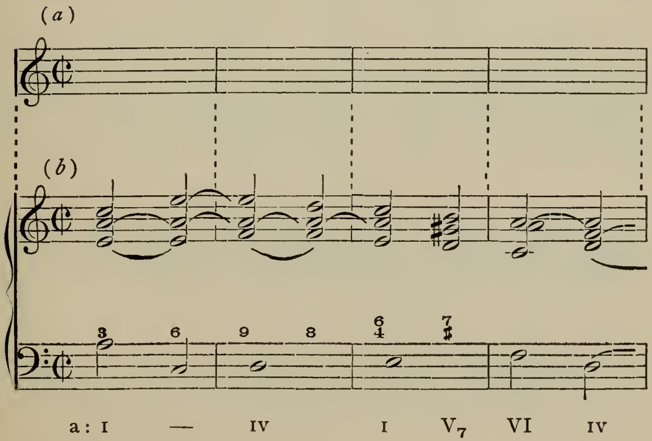

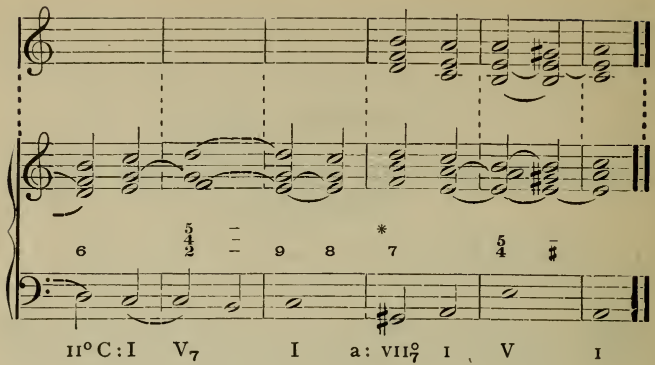

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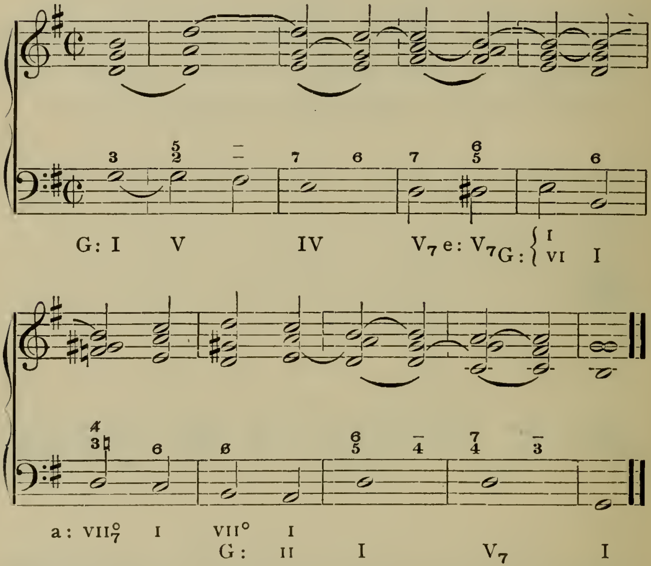

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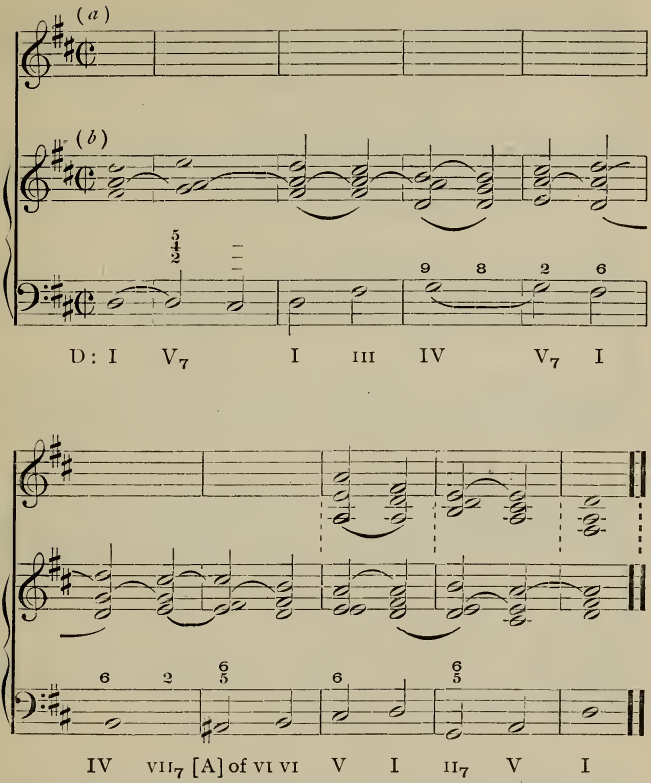
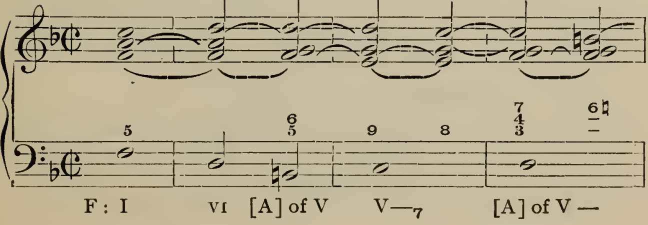
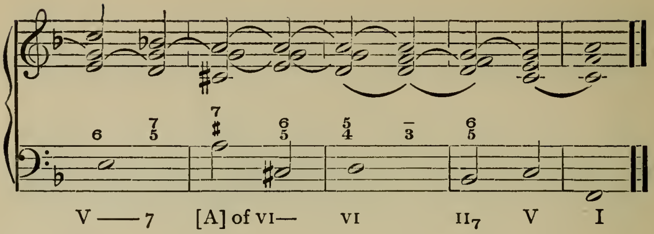
* By allowing all four voices to progress in the same direction, which should occur only in very exceptional cases, the effect of this exercise is improved, as shown above.

4.


(a)
(b)
5 4 2
9 8 2 6
D: I V7 I III IV V7 I
6 2 6 5 6 6 5
IV VII7 [A] of VI VI V I II7 V I

5.


5 6 5 9 8 7 4 3 6♮
F: I VI [A] of V V—7 [A] of V —



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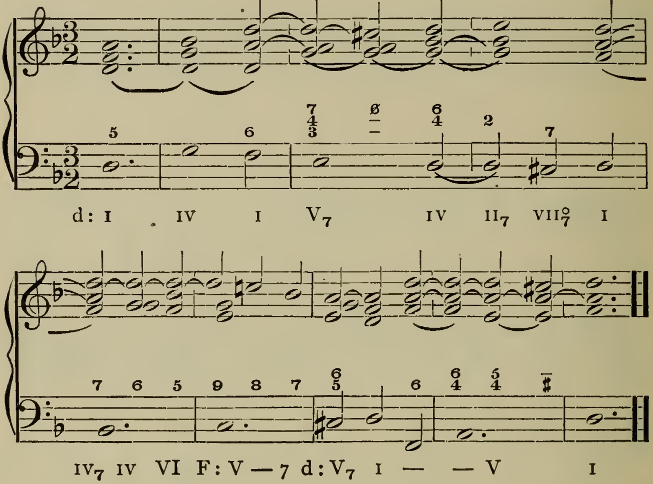


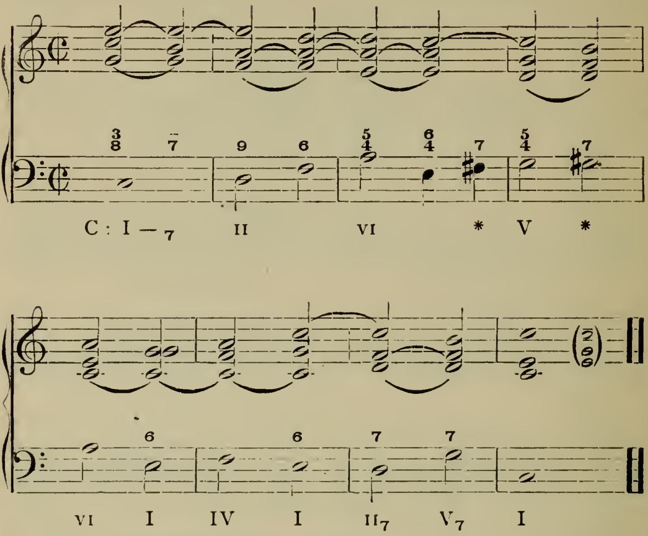
SYNOPSIS OF ALTERED CHORDS—FUNDAMENTAL CHORDS.

Definitions	Alteration	A chromatic raising or lowering of a chord-tone without changing the letter-name.
	Fundamental Chords	Those like Nature's chord. May occur as triads, chord of 7th, 7th and 9th, or Diminished 7th.

- Altered chords. Fundamental chords.
  - Classification
    - Chromatic or Enharmonic alteration produces
      - (a) An Altered Chord.
      - (b) A foreign Fundamental Chord.
  - Change of Notation
    - Shows change of Root.
    - Causes change of Leading-tone.
    - Causes change of Tendencies.
    - Causes change of Resolution.
  - Change of Root of a fundamental dependent chord
    - Caused by
      - Change of Notation (enharmonic change).
      - Chromatic Alteration of one or more tones.
    - Produces
      - Change of Notation.
      - Change of Resolution.
      - Change of Key.
  - To distinguish between Altered and Foreign Fundamental Chords
    - Condense the chord to simplest form, to find the root; compare with fundamental chord upon same root.
  - The Principle of the "Sharpest Note"
    - Derived from principle of "Order of sharps" (or flats) in signature. "Sharpest" note is the leading-tone in all fundamental dependent chords. Key easily discovered from this point.
  - Ambiguous Chords
    - Classified by their resolutions or progressions.
  - Treatment of Altered Chords
    - Altered tones are treated as Melodic passing-notes, accidental sharps ascending and flats descending.
  - More common Altered Chords
    - Triad with raised 5th.
    - Chord of 7th with raised 5th.
    - Chords of the augmented sixth.
    - Neapolitan 6th
      - Used only on lowered second degree in Minor.

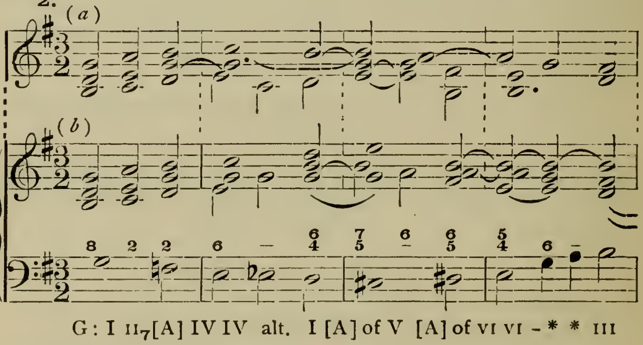
[Section 308.]

1.

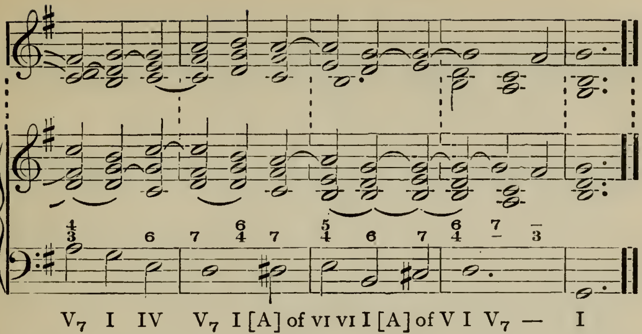


* See " Harmony Simplified," § 307 The chord on G♯ may also be classified as the " attendant " of VI

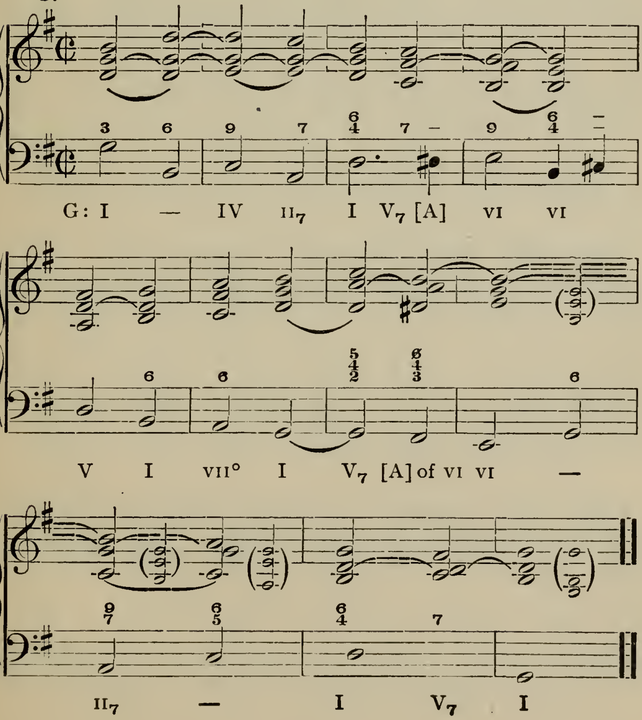
2.



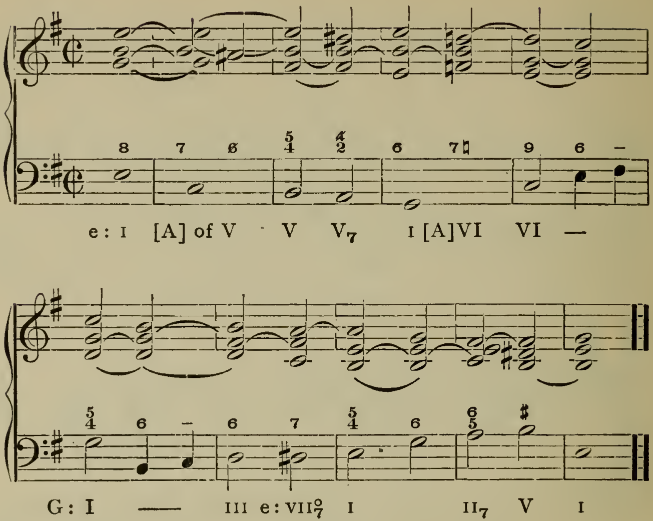
** See " Harmony Simplified, ' § 307.


4 3 6 7 6 4 7 5 4 6 7 6 4 7 — 3
V7 I IV V7 I [A] of VI VI I [A] of V I V7 — I

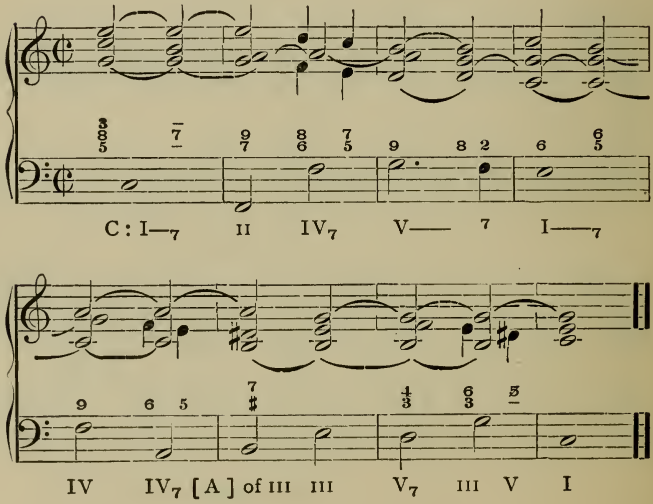
3.


3 6 9 7 6 4 7 — 9 6 4 —
G: I — IV II7 I V7 [A] VI VI
6 6 5 4 2 6 4 3 6
V I VII° I V7 [A] of VI VI —
9 7 6 5 6 4 7
II7 — I V7 I

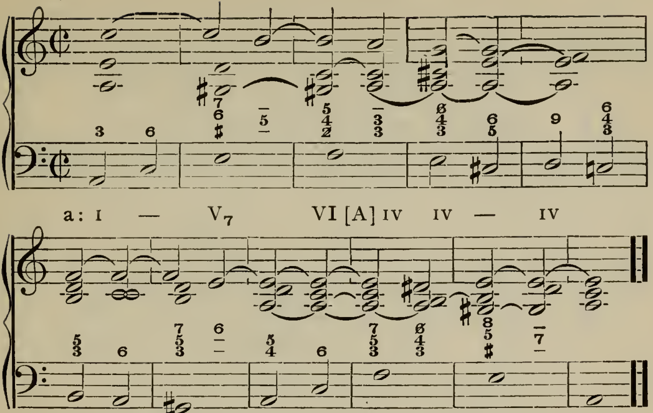
4.


8 7 6 5 4 4 2 6 7♮ 9 6 –
e: I [A] of V V V7 I [A]VI VI —
5 4 6 – 6 7 5 4 6 6 5 ♯
G: I —— III e: VII°7 I II7 V I

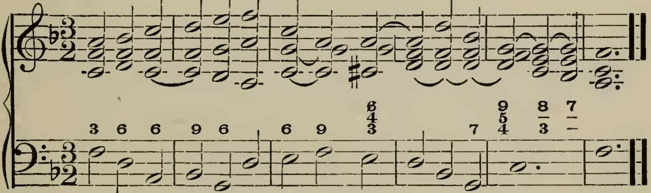
5.


3 8 5 7 9 7 8 6 7 5 9 8 2 6 6 5
C: I—7 II IV7 V—— 7 I——7
9 6 5 7 ♯ 4 3 6 3 5
IV IV7 [A] of III III V7 III V I

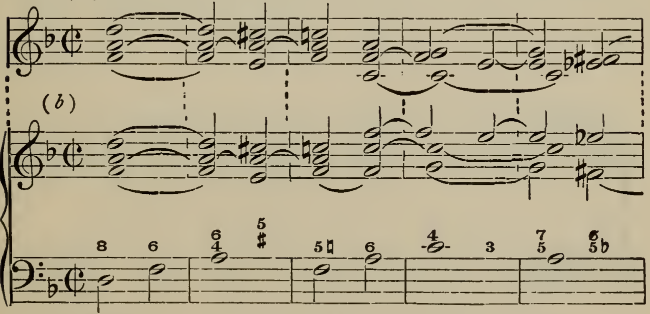
6.

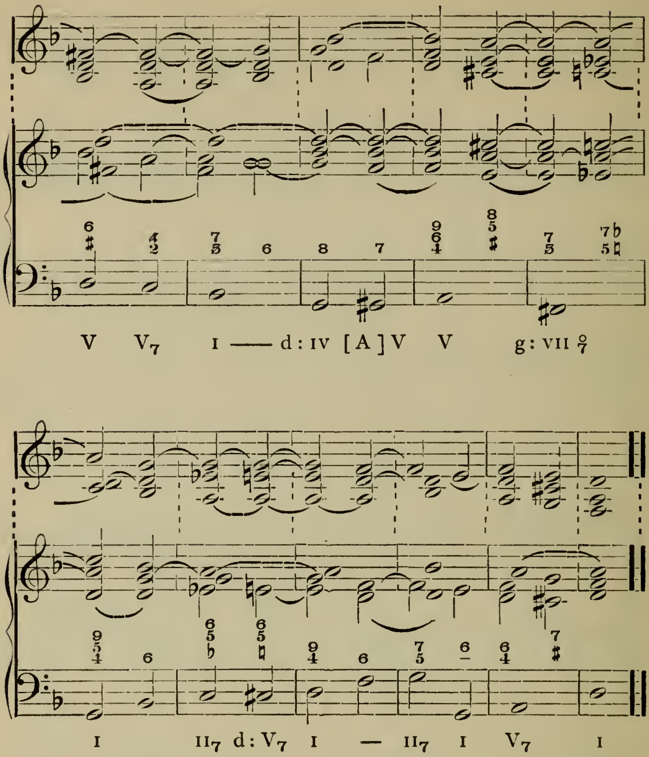

a: I — V7 VI [A] IV IV — IV
II VI VII°7 V7 I — VI7 [A] V V — 7 I

7.

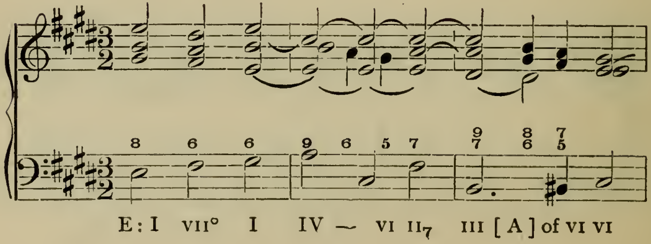

F: I IV I IV VII° VI V I [A] VI VI IV II7 V —— 7 I

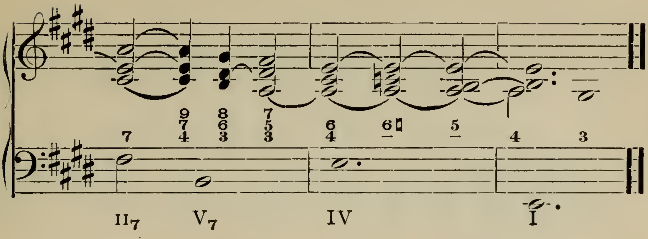
8. (a)


(b)
d: I — — V F · I — V g VII°7


6 ♯
4 2
7 5
6
8
7
9 6 4
8 5 ♯
7 5
7♭ 5♮
V V$_7$ I —— d: IV [A] V V g: VII $^{o}_{7}$
9 5 4
6
6 5 ♭
6 5 ♮
9 4
6
7 5
6 –
6 4
7 ♯
I II$_7$ d: V$_7$ I — II$_7$ I V$_7$ I

9.


9 7
8 6
7 5
E: I VII° I IV — VI II$_7$ III [A] of VI VI



QUESTIONS ON SUSPENSIONS.

(1) What is a Suspension?

(2) What is the Preparation of a Suspension.

(3) What is the Percussion of a Suspension?

(4) What is the Resolution of a Suspension?

(5) Do Suspensions usually resolve upward or downward?

(6) What is the difference between a Suspension and a Retardation?

(7) For what purpose are Suspensions used?

(8) May Suspensions occur in more than one part at a time?

(9) When is a Suspension resolved "ornamentally"?

(10) What is Anticipation?

(11) Describe Syncopation, and state how it may be produced.

CHAPTER XV.

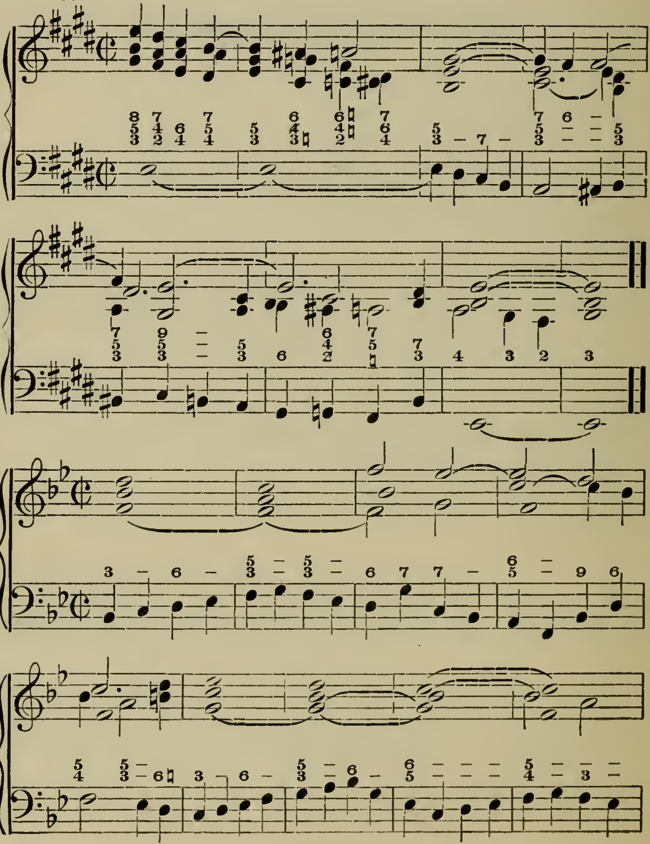
UNESSENTIAL NOTES; PASSING-NOTES.

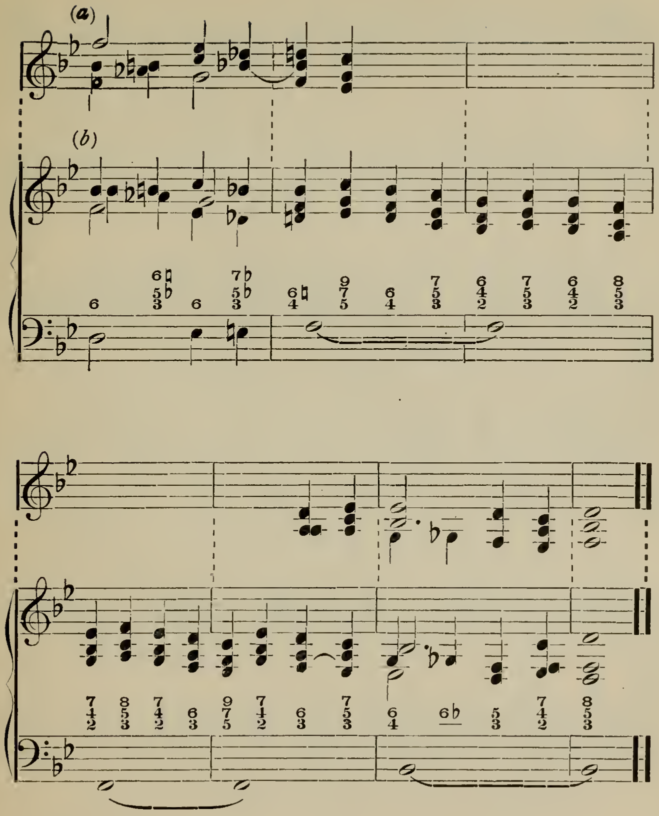
[**Section** 317.]

See pages 180, 190.

[**Section** 324.]

1.





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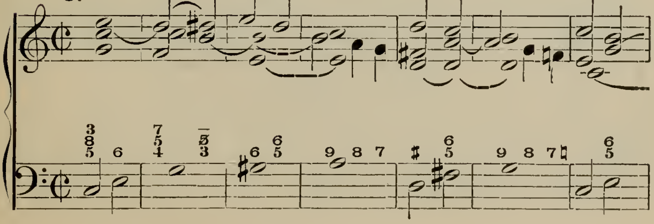

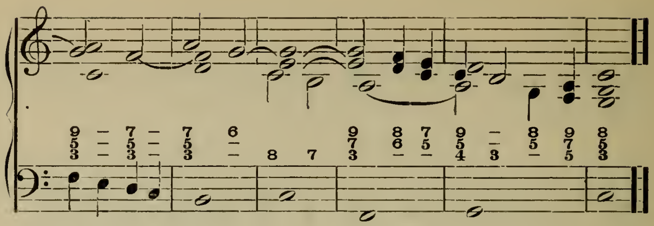

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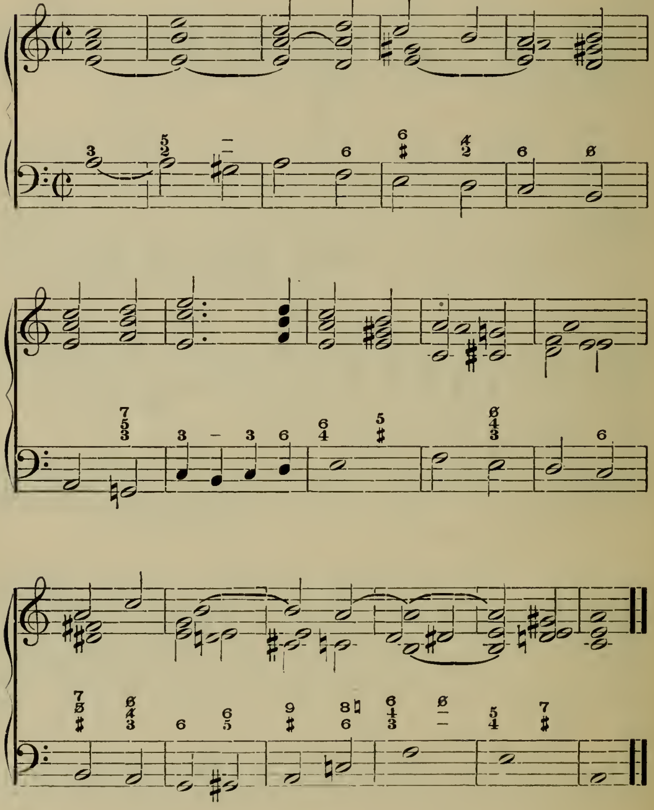

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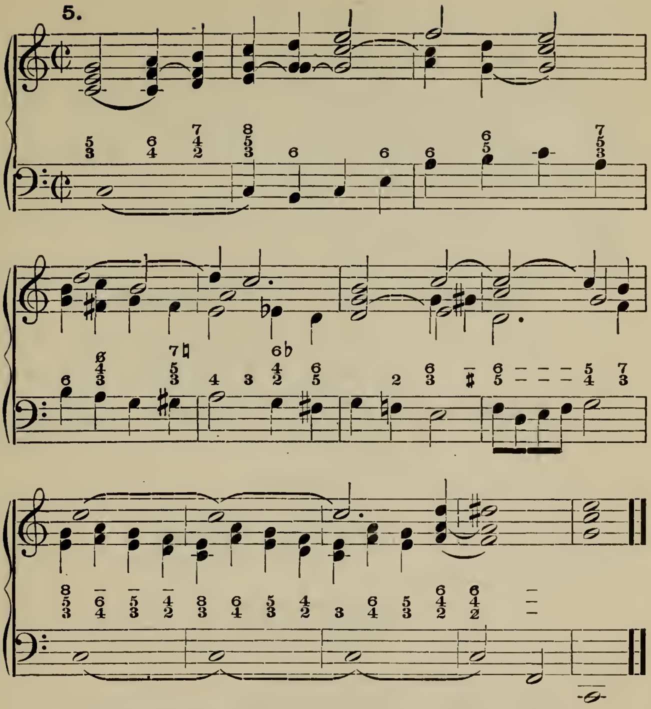

QUESTIONS ON PASSING-NOTES, ETC.

(1) What are Passing-notes?

(2) Do Passing-notes affect the harmonic structure particularly?

(3) Do Passing-notes usually fall upon accented or unaccented parts of the measure?

(4) What are Auxiliary Notes?

(5) What are Changing-notes?

(6) What is the basis of Turns, Trills, and similar ornaments?

(7) What are the essentials of an Organ-point?

(8) What is an Inverted Pedal?

(9) What is a Sustained Note?

(10) What are "essential" and "unessential" notes, and their uses in the study of "Ornaments"?

(11) What are "essential" and "unessential" dissonances, and how do they resolve?

(12) Into what three classes may all chords be divided, and how are they governed?

SYNOPSIS OF VARIETY OF STRUCTURE.

- Variety of Structure
  - Suspensions
    - Regular Suspensions
      - Preparation.
      - Dissonance, or Percussion.
      - Resolution.
        - Regular.
        - Ornamental.
    - Retardations.
    - Anticipations.
  - Passing-Notes
    - Regular Passing-notes
      - Diatonic.
      - Chromatic.
    - Changing-notes.
    - Passing-chords.
  - Sustained Tones
    - Organ-point.
    - Inverted Pedal.
  - Ornaments
    - Appoggiaturas.
    - Turns, Trills, etc.

GENERAL RECAPITULATION.

(1) Divide chords into their two general classes.

(2) Divide the dissonances into two general classes.

(3) What is a Fundamental Chord?

(4) What is a Fundamental Dissonance?

(5) What is a Non-fundamental Dissonance?

(6) What are Essential Notes?

(7) What is an Essential Dissonance?

(8) What is a Non-essential Dissonance?
(9) How are Consonances governed?
(10) How are Fundamental Dissonances governed?
(11) How are Essential Dissonances governed?
(12) How are Non-essential Dissonances governed?

CHAPTER XVI.

CROSS RELATION, ETC.

[**Section** 332.]

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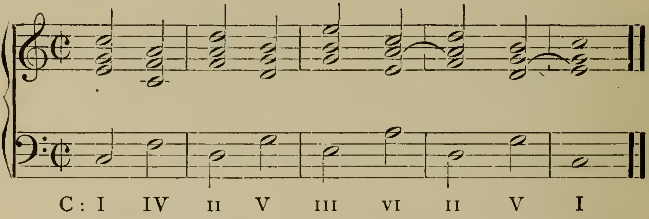
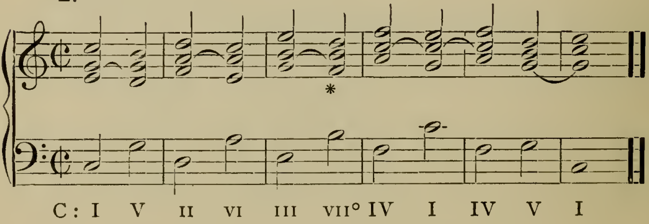


Note. The persistent contrary motion in sequence treatment gives a more characteristic effect than would be secured by holding the common notes which would result from writing the second, fourth, sixth and eighth chords respectively in the next higher position.

2.



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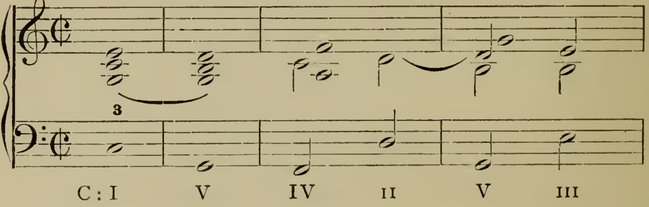

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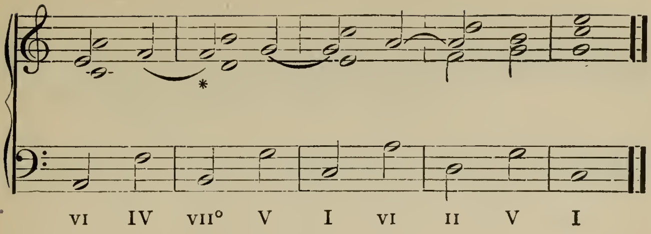
* The doubling of the leading-tone is excused by the sequence.



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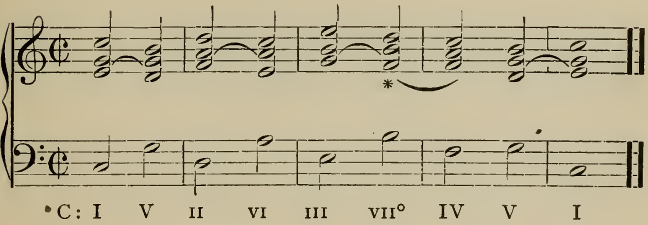

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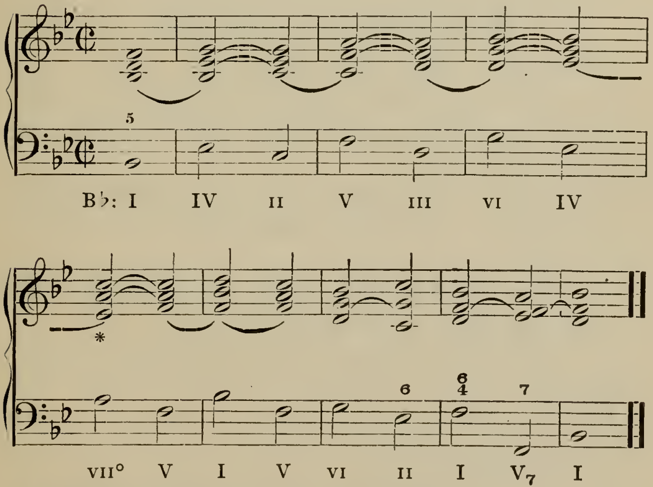

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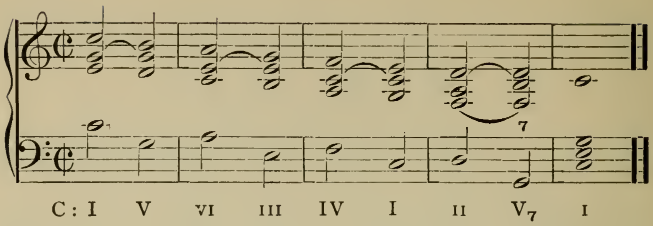
* Doubling of leading-tone is excused by the sequence.

6.



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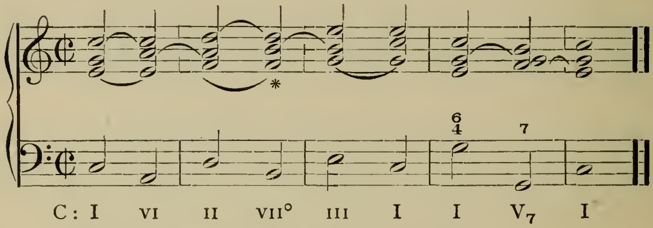


* Doubling of leading-tone is excused by the sequence.

MISCELLANEOUS QUESTIONS.

(1) What is "Cross Relation"?

(2) What is a Tritone, and how should it be treated?

(3) What restrictions are placed upon the use of the chord of the Six-four?

(4) What is a Sequence, and how is it best treated?

(5) What is a "Real" and what is a "Tonal" sequence?

(6) Name the Related keys, and show how the whole group is epitomized in the chords of a key.

(7) Describe the naming of the Octaves as "Great," "Small," etc.

(8) Describe the C-clef, and how it is used as Alto, Tenor, or Soprano clef.

(9) Describe the chord of the Eleventh, and how it is used.

(10) Describe the chord of the Thirteenth, and how it is used.

(11) What do you understand by the terms "Strict Composition" and "Free Composition"?

CHAPTER XVII

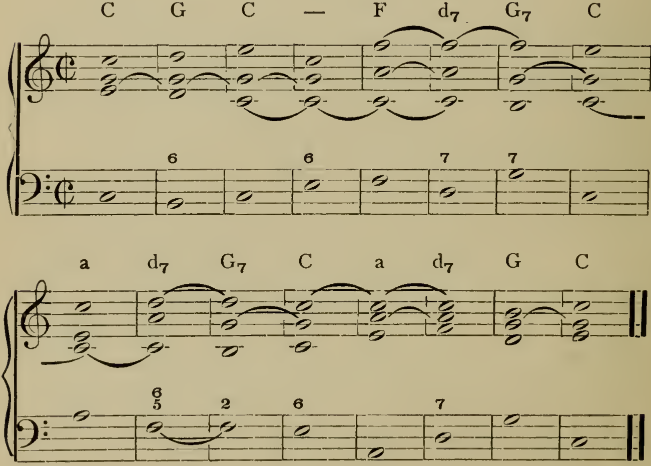
HARMONIZING MELODIES

[Section 340.]

Before writing any exercise in Harmonizing Melodies, it is helpful to play and sing the melody, trying to feel where the cadences come and recognizing, if possible, the chords leading to them. With a little practice, students become able to recognize the proper chords for the different notes of the melody. When the composer works, he thinks his melody and harmony together, that is, he feels (and sketches) not only the melody but the appropriate chords as well. If you will bear these points in mind, your work will become easier and more natural.

About the choice of chords, see notes upon Harmonizing the Scale, pages 180–183 of this volume.

1.



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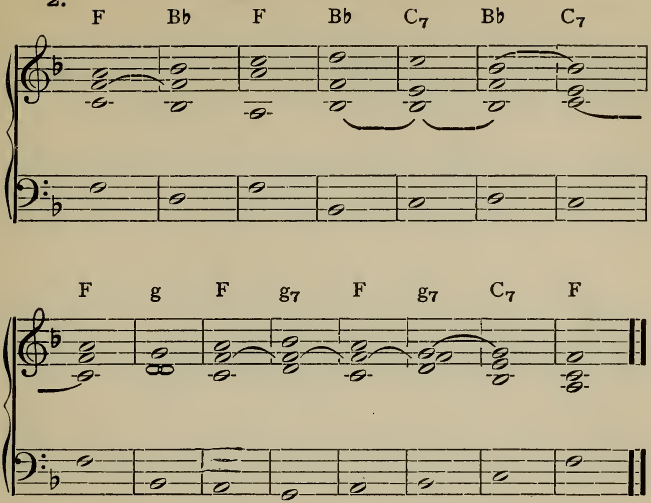

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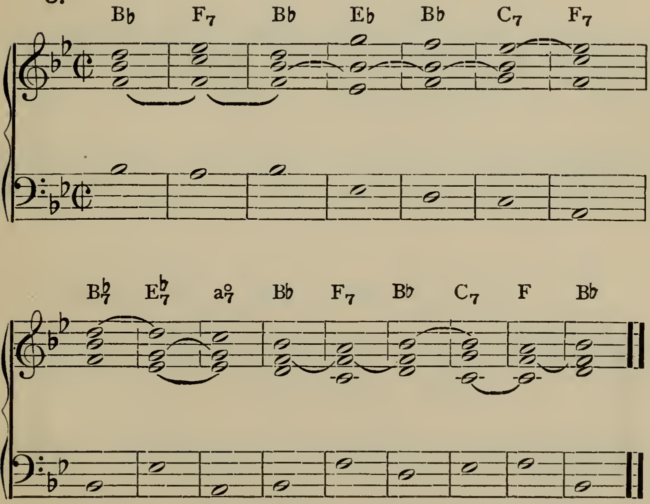

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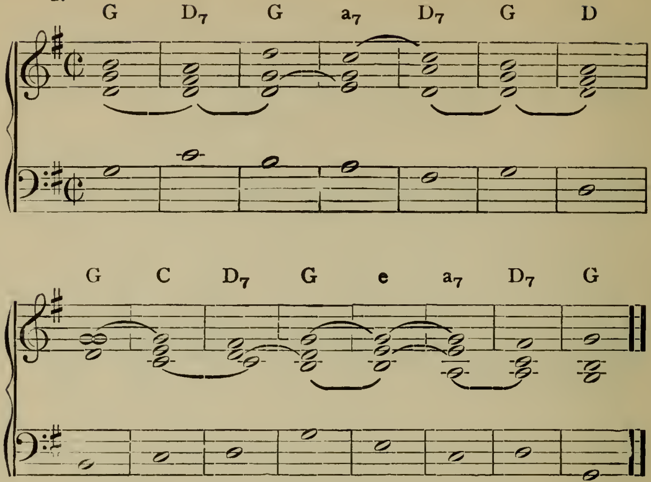

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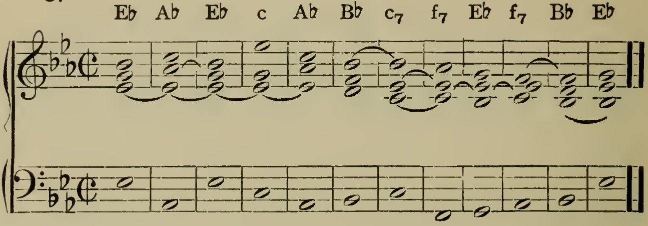

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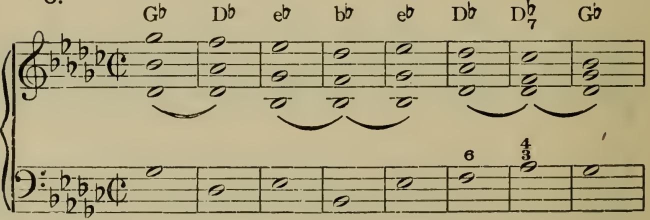

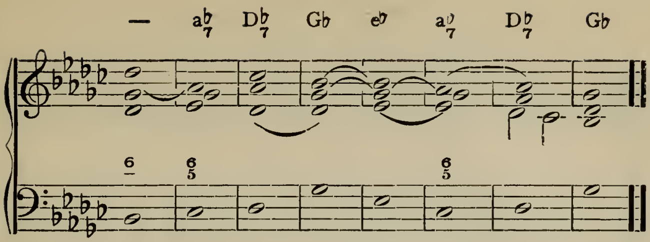

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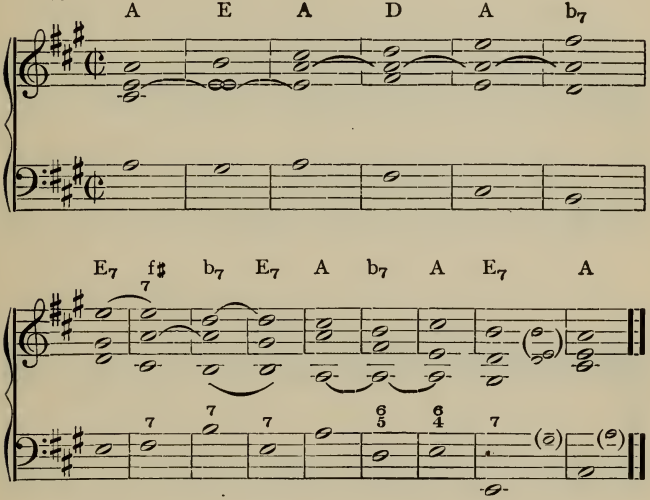
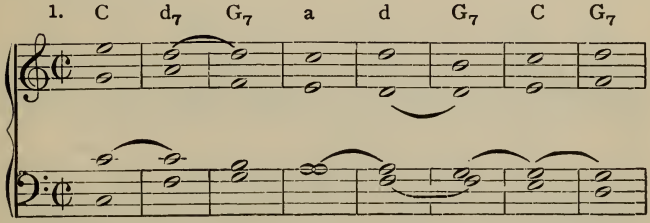
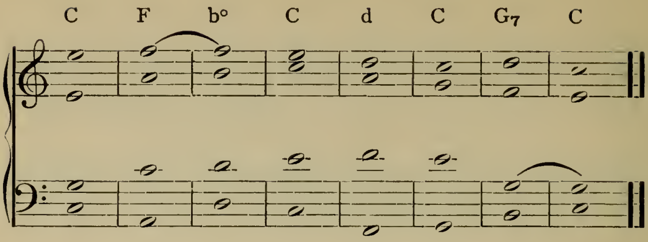


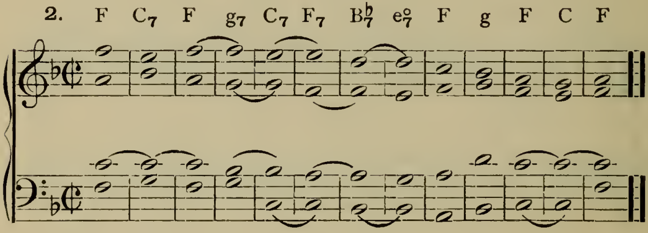
[Section 341.]

1.

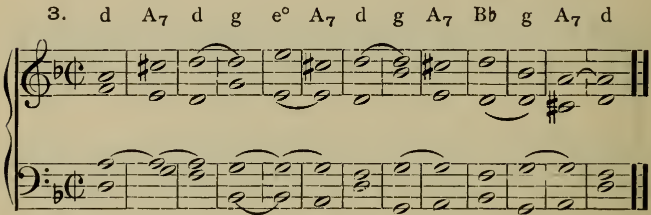



C
F
b°
C
d
C
G7
C

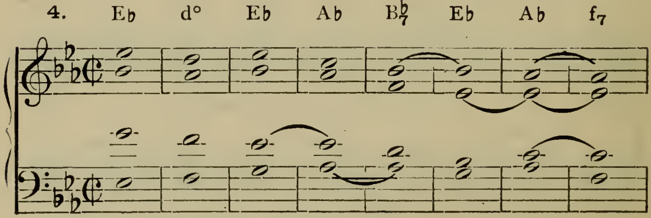
2.

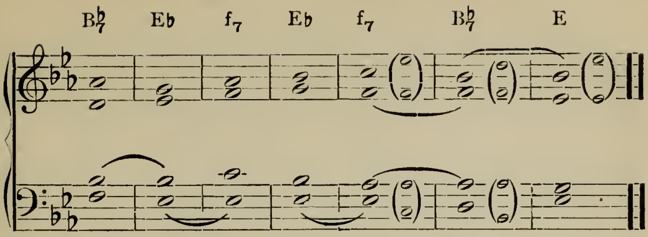

F
C7
F
g7
C7
F7
B♮7
e°7
F
g
F
C
F

3.


d
A7
d
g
e°
A7
d
g
A7
B♭
g
A7
d

4.


E♭
d°
E♭
A♭
B♮7
E♭
A♭
f7



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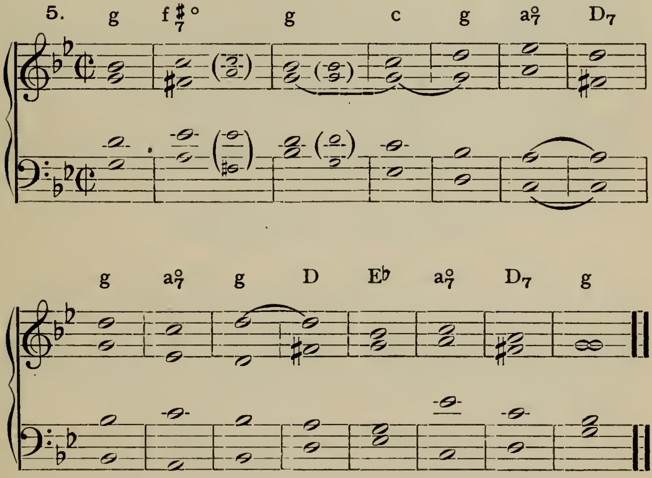

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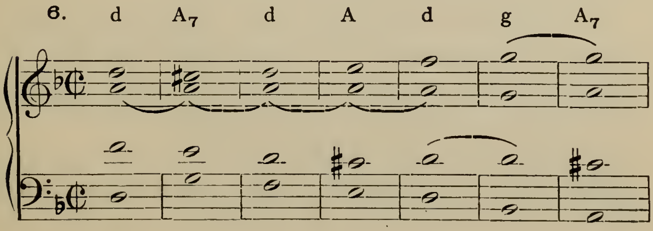

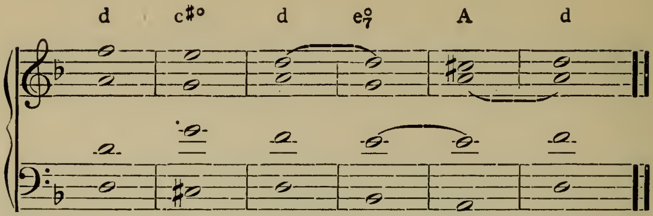

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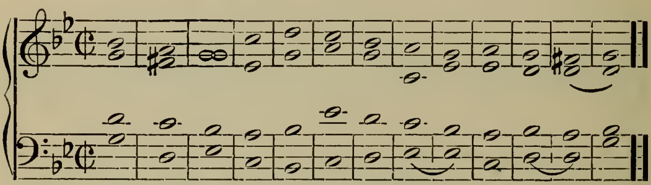


ADDITIONAL EXERCISES.

(*a*) Write as many unconnected chords as possible containing the note C in the soprano, grouping the chords by keys as far as convenient. Do not use chords more complex than those studied up to this point. Inversions may be freely used.

(*b*) Repeat exercise (*a*) with C as the bass note.

(*c*) Repeat with *other* notes, first in the soprano, then successively in bass, alto, and tenor.

(*d*) Repeat the foregoing at the keyboard.

(*e*) Improvise connected series of chords, sustaining the note C continuously. (The sustained note may be changed from one voice to another to give added variety.)

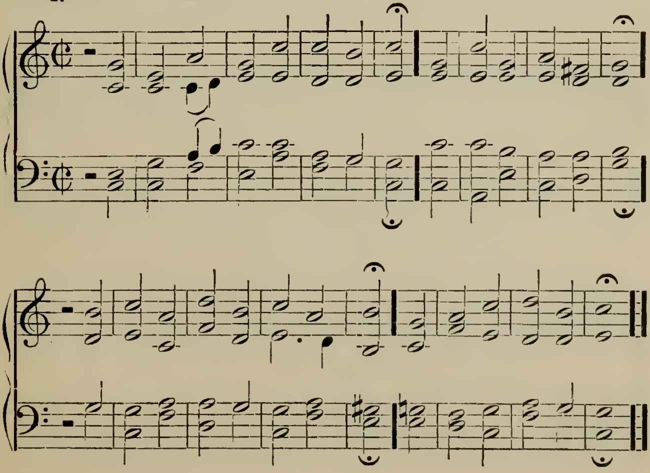
(*f*) Repeat, using other sustained tones.

(*g*) Examine various harmonizations of the intoned "Creed" of the Episcopal or English Church Service; also the song "Ein Ton," by Peter Cornelius.

Special Note. Should the teacher prefer to use the plan of harmonizing melodies in preference to working from a given bass for the regular study of harmony, he will find ample material in this Key by simply assigning the highest part in the solutions as exercises to be written. In this way he will also be provided with correct solutions in each case. It should be observed, however, that these highest parts hardly represent real melodies, as they lack variety, freedom and "content." They should, therefore, be supplemented by other material, such as songs, hymns, chorales, chants, and short original melodies. In this work it is also well to require examples harmonized for two, three, and four male voices and similarly for female voices. More advanced students should also write free piano accompaniments for Ballads and organ accompaniments of church anthems; while still more advanced students should write string-quartet accompaniments of solo and chorus. This work takes the professional student well along the practical side of advanced work, without requiring much originality of thought, such as is necessary for worthy composition. In theory study there has been too much time wasted in trying to make every student a composer, instead of building sound musicianship and practical knowledge for the needs of the professional career.

[Section 342.]

1.



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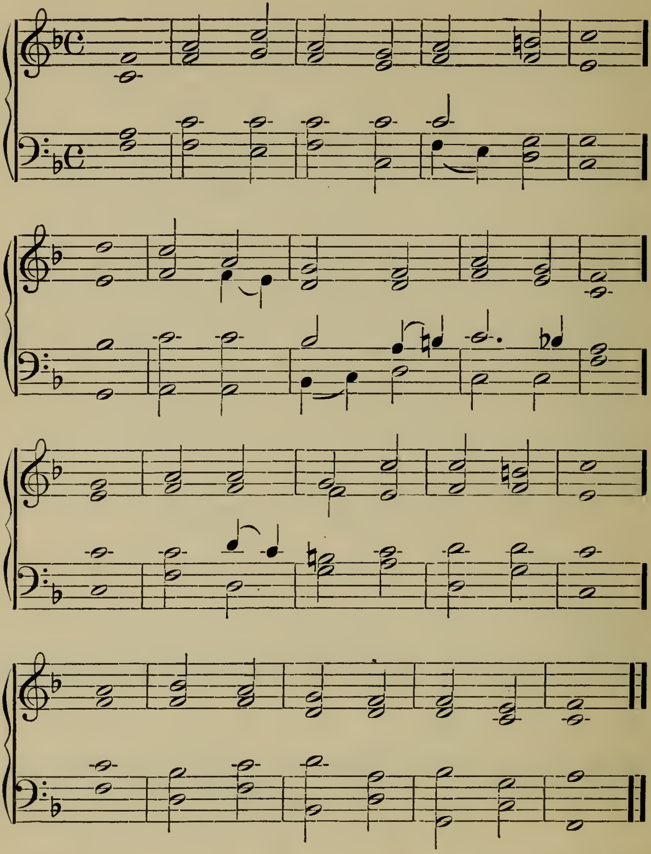

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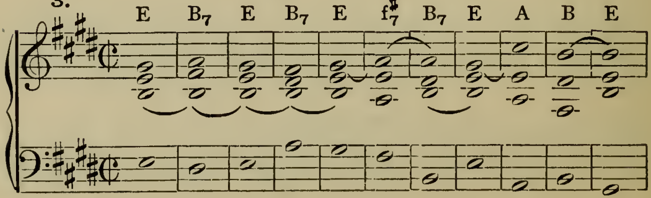

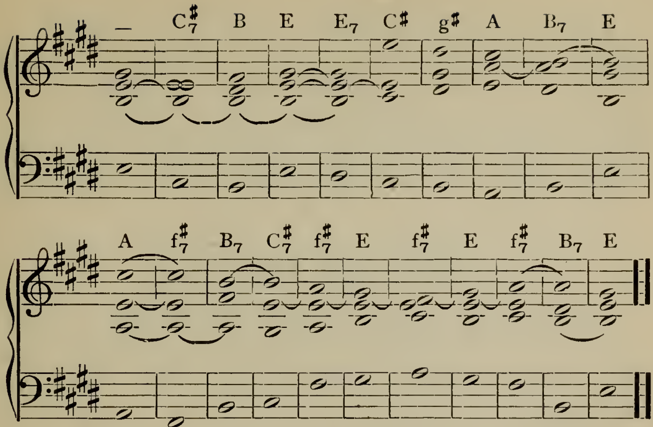
—
C♯7
B
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E7
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g♯
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B7
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f♯7
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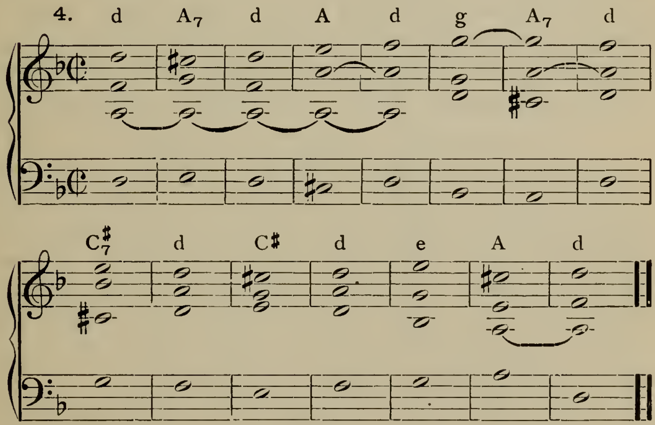
E

4.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A7
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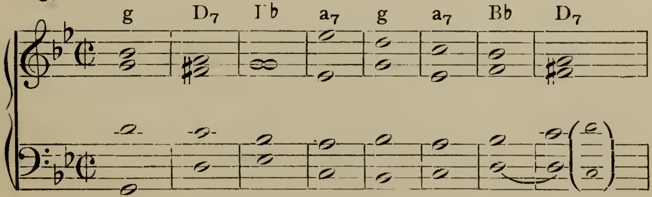
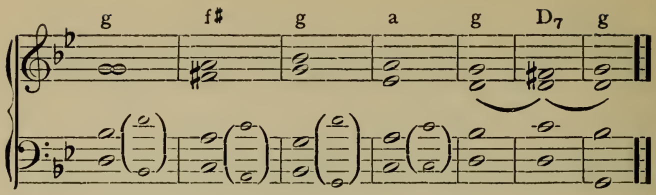
e
A
d

5.


g
D7
Bb
a7
g
a7
Bb
D7



HARMONIZING THE SCALE

Harmonizing a scale is more difficult than working with a more varied melody or given bass. The eight notes progressing in the same direction increase the difficulty of managing the other parts.

As beginners usually find the work especially troublesome, it is often advisable to delay this study till some progress in Part-writing has been made; for instance, till the close of Chapter VI or VII of "Harmony Simplified."

UPON THE CHOICE OF CHORDS.

The student should realize that any note may belong to three different triads, since it may be the root of one triad, the 3rd of another, and the 5th of another. For example, the note C is found in the triads of C–E–G, A–C–E, and F–A–C. With chords of four tones (chords of the 7th) the possible variety is still larger. (This is shown in the Additional Exercises under §342.)

In selecting a series of chords for harmonization of a scale or, in fact, for the expression of any thought in music, it would at first appear that we are free to take any chord with which a good connection can be made by means of a common tone; but it will be found that we cannot harmonize the scale by any promiscuous series of chords which happen to contain the required tones, but that a certain natural succession of chords is required.

There is a principle underlying this which may be expressed as follows:

A succession of chords produces a feeling, somewhat like that produced by gravitation, which may be called the Feeling for Cadence — the expectation of finally hearing the Tonic Chord, preceded by the Dominant. The nearer we approach the end of a phrase, the stronger this desire for a cadence becomes. And if in the series of chords we appear to turn away from this path toward the Cadence, or to reverse the direction, the effect becomes in a way unsatisfactory and disappointing. For example, we are so accustomed to hear, in the Closing Formula, the Subdominant Chord followed by the Dominant and so leading on to the cadence, that if this order is reversed and we hear the dominant chord followed by the subdominant (while we are expecting to hear the tonic) this feeling of disappointment is often very pronounced. It is difficult to say just what succession of chords will satisfy or disappoint in this respect. A safe rule is to gradually work into some form of the closing formula, and after this formula is once entered upon, the general trend of the chords should be toward the cadence. This does not mean that other chords cannot be interpolated. It is suggested that at the beginning of the series we may take a few chords that are well connected with each other, and without any thought of the closing formula; but after this free commencement we should begin to turn our thoughts homeward toward the closing formula and cadence.

The above applies to the exercises in Harmonizing the Scales, to the Harmonization of Melodies, to Improvisation, and to the first steps in Composition. The principle is more briefly expressed in the first two of the Notes below, on Harmonizing the Scale.

NOTES AND DIRECTIONS.

NOTE I. ABOUT THE CHOICE OF CHORDS. The underlying thought in nearly all chord-selection is the Closing Formula, or something approaching it. That is, we start out from the Tonic Chord and make a more or less free series of chords, but generally wind up with the series V–I, or IV–V–I, or ii–V–I, or some similar series.

NOTE II. Preceding the Closing Formula, choice may be made of chords upon the other scale-degrees. Among others, an effective series may be made by using the relative minor of each major triad directly after that major triad; for example, I–vi–IV–ii–V–I.

NOTE III. When employing CHORDS UPON SUCCESSIVE DEGREES OF THE SCALE, especial care should be used to insure correct leading of the parts, using sufficient contrary motion.*

NOTE IV. Whenever Inversions are used, a melodic character should be given to the bass. The fact that an inversion is used is an indication that the bass has become melodic. In general, therefore, the bass should progress stepwise or approximately so when inversions are used. It is not often well to jump from an inverted bass over a large interval to the root of some other chord.

NOTE V. The chord of the Six-four, or the second inversion, should seldom be used, excepting just before the close. This chord is so frequently used to introduce the cadence, that whenever it is heard we are apt to expect a cadence. For special directions about the Six-four chord see "Harm. Simp." §230.

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* In harmonizing the scales it is allowable to have all four voices move in the same direction if Forbidden Consecutives can be avoided; but it should be understood that this is almost a last resort and not to be employed except in rather extreme necessity, such as bringing the parts too closely together.

Note VI. In harmonizing the scale it should not be expected that all harmonizations will sound equally well. The exercises are designed to develop originality and to help you to choose chords. Many combinations will sound unnatural — in fact, nearly all successions of chords outside of the Closing Formula are apt to sound more or less forced.

Note VII. The Tendencies, Melodic and Harmonic, need not be too closely followed in Harmonizing the Scales.

Note IX. So far as possible, avoid bad hidden Fifths and Octaves, the doubling of tendency-notes, and the progression of all four parts in the same direction. But remember that these directions are less binding in harmonizing the scales than elsewhere.

[Illustrating §135.]

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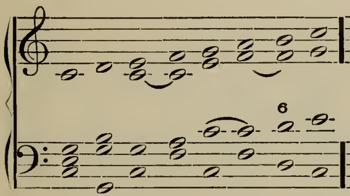

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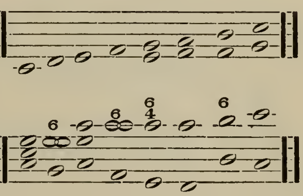

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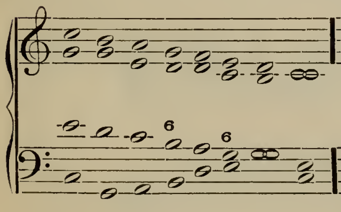

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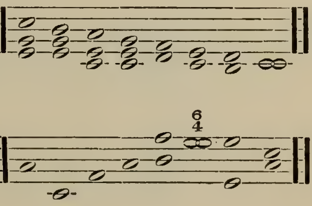

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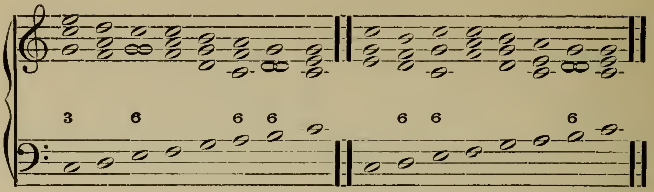

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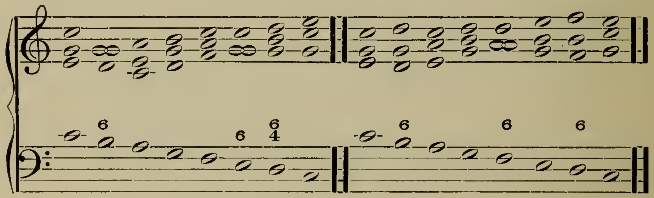
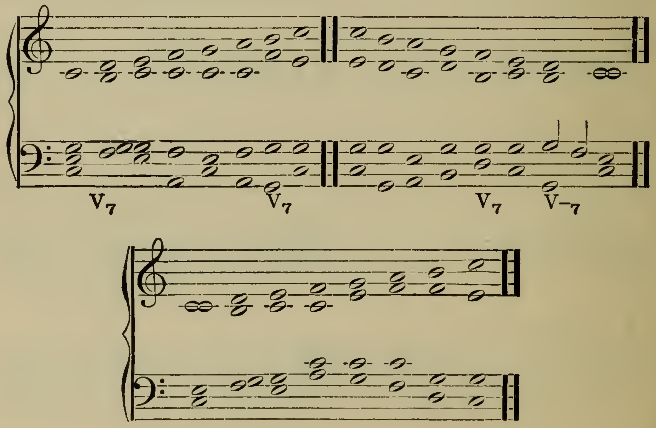


Being restricted to the use of common chords, the progressions above are less natural and flexible than those in the following examples.

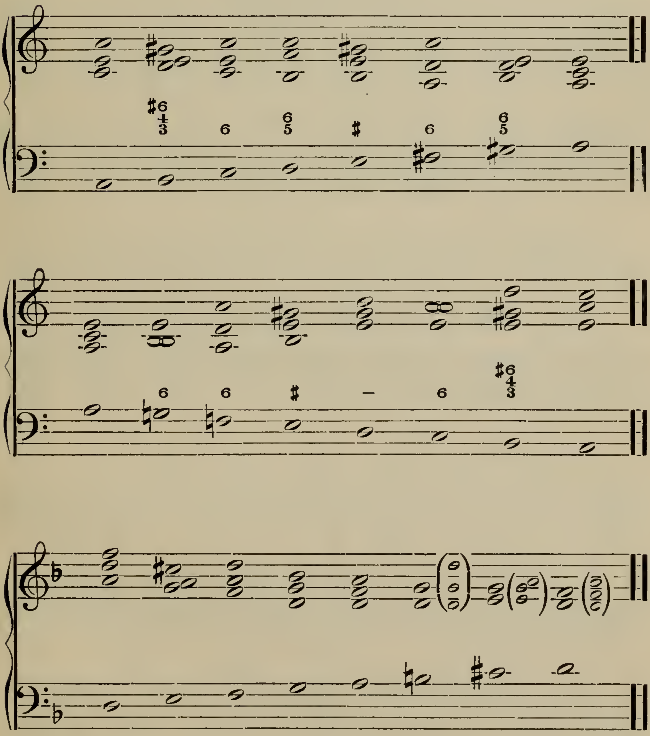
[Illustrating §§171, 175.]



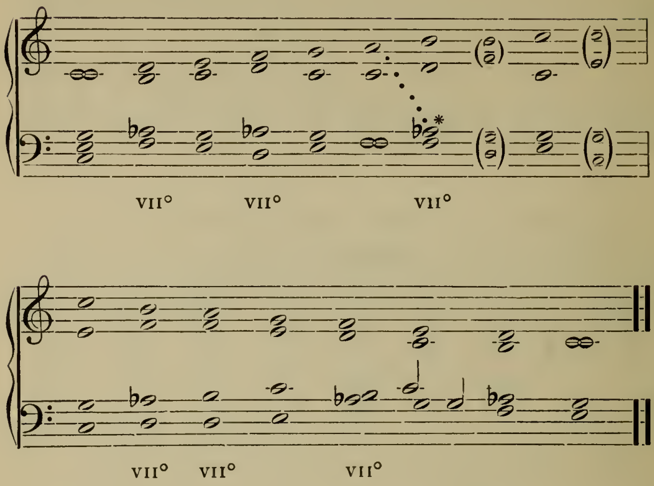
In addition to writing as many exercises as possible, the student may refer to his exercises on §135, and wherever possible change the Dominant triads to Seventh-chords.

By taking the scale in many different keys for harmonization, different solutions will be more likely to suggest themselves to the mind.

ILLUSTRATING THE HARMONIZATION OF THE MINOR SCALE.



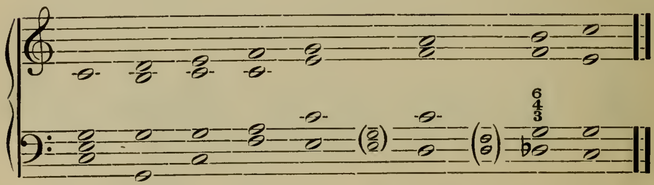
[Illustrating §221.]



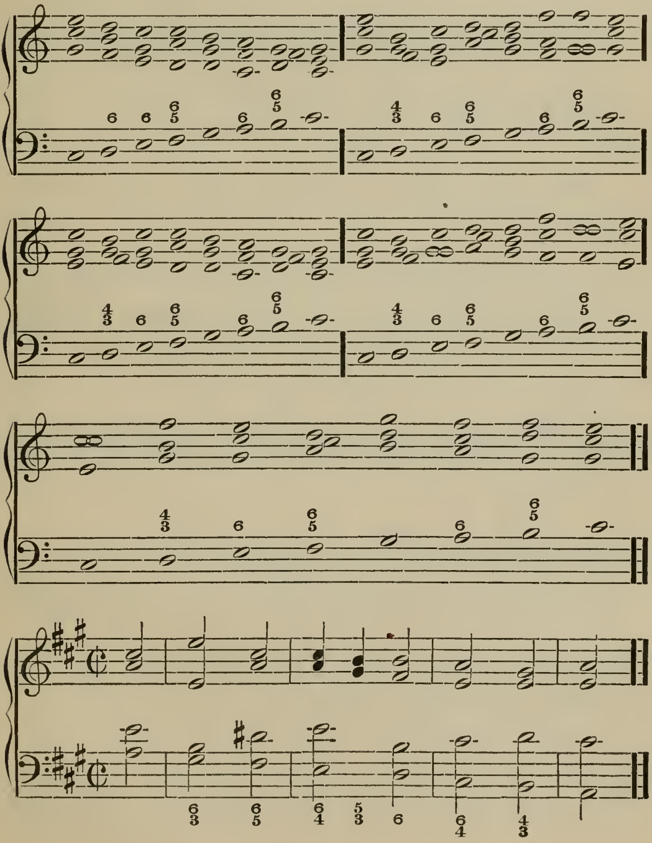
*If desired, we may avoid the cross relation by using the chords in parenthesis.

As we advance through successive chapters, we are allowed greater variety of chord-material, which brings increased naturalness of effect.

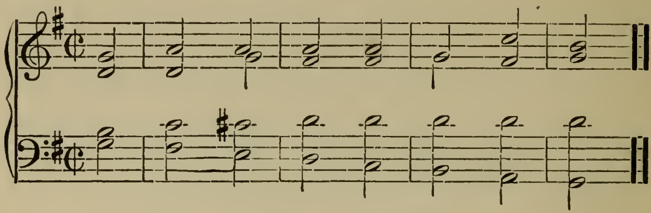
[Illustrating §233.]



If we can occasionally group two chords together in such a way as to make one lead to the other quite naturally, the effect will be improved. This might, perhaps, be described as the introduction of the melodic element, or the attempt to make the melody mean something (this applies to the progression of even the inner parts), rather than to let the notes jump around to find a place in these successive chords. The following form is known as the "Rule of the Octave" (also see page 188).

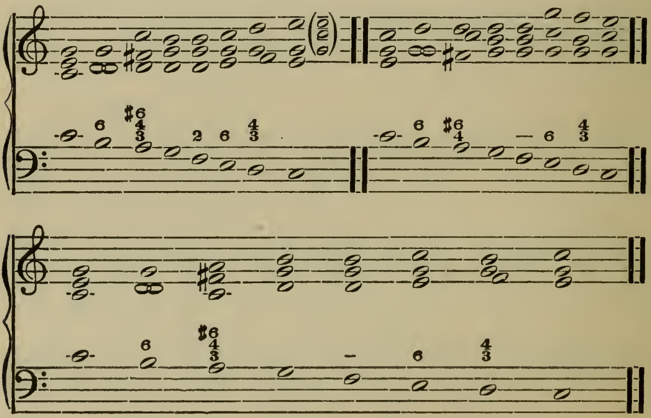


ILLUSTRATING THE USE OF ATTENDANT CHORDS.

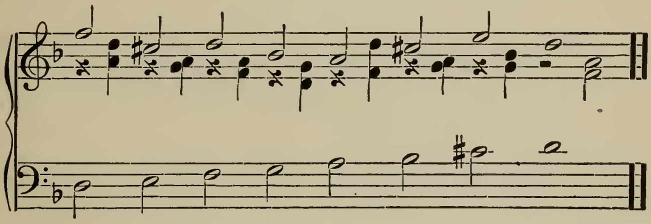


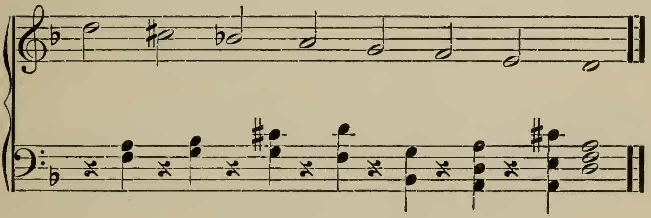
The Attendant Chords are of especial value in producing smooth progressions and giving greater variety of harmonic material. The student will now insert Attendant Chords at various points in the harmonization of the scale.

The harmonizing of the descending scale is much improved by the use of an Attendant Chord, as shown below. The treatment given in the next group of examples is a formula known as the "Rule of the Octave," and considered one of the best and most natural ways. These or similar forms should be played in all major and minor keys and written out in a number of keys.



Further variety is obtainable by writing the scale as a melody and the harmonization as "after-beats" or accompanying chords, as shown in the illustration following. In such cases the rules of "common note in the same voice," and "nearest form of the new chord," will be less rigid in their observance.

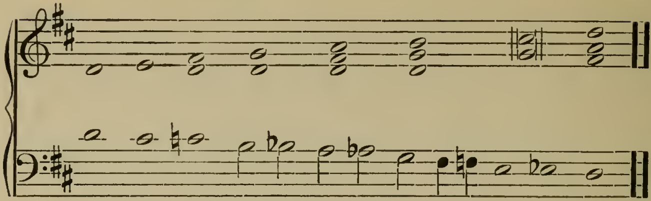




Variety may be given by introducing an occasional passing-note, or by using two chords to harmonize a single scale-tone; or *vice versa*, by using two scale-tones with a single accompanying chord, with or without change of position.

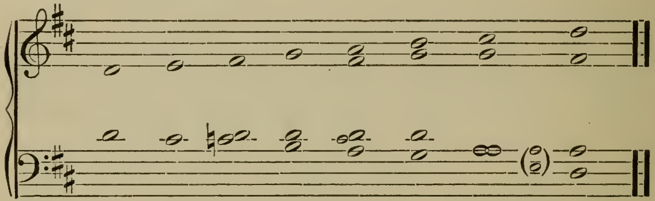
As this work does not come absolutely under the head of "strict" writing, we may, if necessary, vary the number of parts in successive chords as shown in the illustration below.

ILLUSTRATING THE USE OF PASSING-NOTES.



The above is an example of the free use of the voices, with chromatic treatment of bass. Studies of this sort develop the inventive power and prepare the student to express his own ideas smoothly.

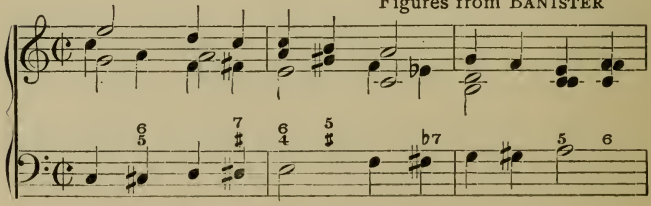
To play the last two exercises in every key will be found a very great benefit. Variation upon this arrangement should be sought.

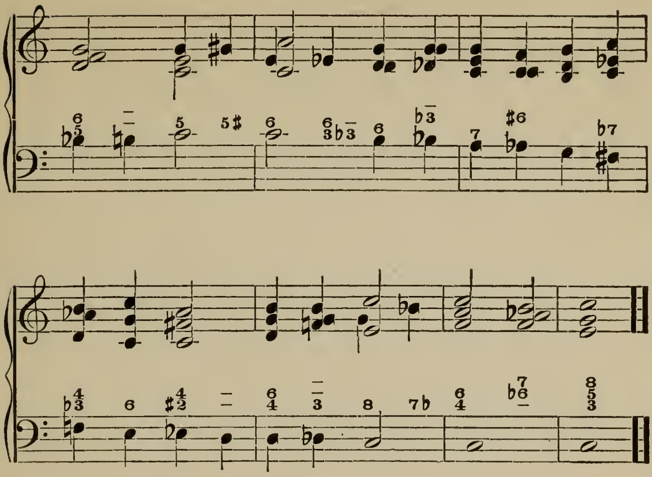


An example of the close interweaving of the parts, and also of freedom in number of parts. This commences with one tone and ends with four.

CHROMATIC SCALE HARMONIZED.

Figures from BANISTER





Variety of treatment has been by no means exhausted in the foregoing examples, and the student should strive to write examples introducing other successions of chords, Suspensions, Passing-notes, two or more chords to one scale-tone, two scale-tones to one chord, etc.

Work of this character, including the harmonization of single tones and the adaptation of accompaniments, as already described, the recasting of solos for quartet or chorus, and *vice versa*, is most excellent as advanced work of a practical nature, in many cases better than original composition. It is also most helpful as a preparation for original writing.

In both "Harmony Simplified" and this "Key and Manual," the author has attempted to lead the thought of the student to underlying principles, instead of arbitrary rules, and to bring the work to practical application at every point. The student is urged to hold closely to these principles in his future studies.

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